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IELTS READING

雅思阅读真经 1&2

精编版

刘洪波 主编

曲冰 Nick Stirk 编著

大师经典 · 始于2004

中国第一部真题预测

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前 言

海纳领域编辑部主任于莉女士找到我，《雅思阅读真经 1.2 精编版》需要写前言了。

真的怕了。让我坐下来研发教材，出出题，写写词源文化，我会乐此不疲。但前言这东西没有什么自娱自乐的空间，真正看的人也不多，我又没有找人代笔的习惯，真的麻烦。就把《雅思阅读真经 1》和《雅思阅读真经 2》的前言都放在这里吧。

《雅思阅读真经 1》是我在新东方的时候创作的：

目标读者群

凡对英语语言、文化备感兴趣，致力于提高英语阅读、写作能力，并进一步深入理解英语词汇的同学，尤其是要参加英联邦国家留学考试——雅思（IELTS）考试的同学和计划到英语国家留学的同学。

Target Reader: Anybody who is interested in improving the output of his or her reading and writing English and in gaining an insight into the English vocabulary, in particular, prospective IELTS (International English Language Testing System) candidates and those intending to study in English-speaking countries.

阅读部分文章特点

真实性

所有文章的长度和难度均符合雅思 A 类——学术类阅读考试，并测试过近百名雅思考生，得到一致的反馈——本书的文章内容以及题目难度与雅思红宝书《剑桥雅思》如出一辙。读者对本书每篇文章的精读应该在三遍以上。在真实考试中您很可能会遇到背景相关或内容异常相似的阅读文章。例如：眼镜蛇毒 (Cobra Venom)、校园暴力 (School Bullying)、日本宝塔 (Japanese Pagoda)、圆顶房屋 (Dome)、染料颜料 (Dye and Pigment)、科学欺骗 (Fraud in Science) 等。2001 年 Harvey 我在海外参加雅思考试曾遇到上述文章，2003 年它们在中国考区再次出现。

趣味性

本书中收录了九篇雅思未曾考过的文章。选择的原则是趣味性和知识性。比如我选编了迷失的大陆，该文提及“哲学之王”柏拉图在《对话录》里谈到古文明大西国的沉没；宇宙哲学中有科学家对宇宙起源的探讨；在数学发展一文中融进了关于中国古代数学《洛书》的传奇；大麻危害则是留学生的必修课，因为在国外很多地区家庭种植大麻是合法的，小心你的房东让你尝尝 marijuana! 而曲冰老师选编的英国文化、妇女媒体、法律顾问等文章，主要是考虑到近年来中国大陆地区申请大众传媒和法律专业的学生人数日益增多，兼顾知识性。

试题特点

本书中所有试题由曲冰老师和我命题，没有任何外籍人士参与。每个题型单元的难度由易到难。许多新东方的学生自愿加入了部分试题的难度测试，给我们提出了许多宝贵的建议和修改意见，在此向他们表示真挚的感谢。

BTW，忍不住要提一下曲冰老师主编的单词部分。结合阅读背单词是非常有效的记忆方法，而且在书中曲冰老师对核心单词的注解另辟蹊径，在构词法和词源知识的基础上旁征博引。信手拈来几例：

frailty *n.* 脆弱、品德上的弱点。其形容词为 frail。英国大文豪莎士比亚 Shakespeare 名言“弱者，你的名字是女人！”其英语原文为 Frailty, thy name is woman. thy 相当于现代英语中的代词 your。

mat *n.* 席子、垫子。door mat 为很多人家门口摆放的“擦鞋垫”。如果老公在家里没什么地位，凡事都要老婆最后拿主意，类似中文所说的妻管严，英语国家则通常用 The wife uses her husband as a door mat. 来形容两人在家里的不平等地位。

siren *n.* 警报器、汽笛。【希腊神话】海上女妖 Siren（有时译为塞壬）是半人半鸟的海妖，常用歌声诱惑过路的航海者而使航船触礁毁灭。现代英文中，由她的歌声引申得来了上面的含义。

单词部分内容特点

本书每篇文章的单词学习由“IELTS 大虾必备”、“重点词汇回顾＋同义词扩充”和书末的“单词总表构成”。

IELTS 大虾必备

我们在授课中常遇到同学问：“老师，这篇文章哪些单词必须背，哪些专业性词汇不用背？”好啦，“IELTS 大虾必备”因此而成。我们把它附在每篇文章之后，方便读者结合文章来进行记忆。具备国内大学英语四级水平、即具备四千两百单词量的读者建议先读文章做题，再记忆这部分词汇；高中水平的读者可以先了解学习文章的必备词汇，减少障碍后再读文章、做题。

重点词汇回顾＋同义词扩充

除了有扩充单词量的目的，这部分主要是针对提高学生的英语书面表达能力而设计。已经具备一定英语写作能力的同学一定都对英语国家受过良好教育的人 well-educated Britons or Australians 很看重语言表达的多样性有所了解，在一定的语境中，通过积累一系列同义词表达，就能够达到这一境界。那么想进一步提高英语写作语言质量的同学要把这部分作为学习重点。

除此之外，打算 DIY 申请留学的同学一般都具备比较好的英文功底，那么在准备申请资料的过程中更要注重语言表达是否地道、是否符合英语国家的表达习惯，因此“同义词扩充”部分同样也是把握的重点。

一位可爱的 IELTS 考生欲申请就读英国某大学的学士学位，发给该校招生办公室一封电子邮件，开头一整段表达自己对该校景仰之情的文字如滔滔江水，结果在表达“贵校”

这个概念时耍了一点小聪明，不知道该如何表达就干脆按照字面意思，一对一地翻译为 (your) expensive university。我当时看到后大吃一惊！英国大学的学费均遵循全英标准，各校间同一专业相差无几，凭什么说人家"昂贵"或"宰人"、"贵校"是要显示其至高的学术地位，或表达说话人对它的尊敬，这个时候用 (your) distinguished university 足矣。

当然，形容词 distinguished 的同义词很多，比如说 prominent, eminent, pre-eminent 等都可用于此语境中，表达"贵校"、"贵公司"等类似概念。有没有发现单词 eminent 和 pre-eminent 长得很像？咦……为什么呢？答案书中寻。

单词总表

书末"单词总表"包含了每篇文章的核心词汇和无需考生背记的专业词汇。它的作用是再次阅读文章时，帮助读者进一步了解上下文 context、准确理解文章内涵。

亲爱的读者，英语学习是一种真实的享受。希望通过本书的学习，您能顺利地通过雅思考试，并进而能激发您的学习兴趣，透过本书窥见几朵英语语言艺术海洋中的小小浪花，那是我们最大的心愿。

Reading is to the mind what exercise is to the body. Still Waters Run Deep.

《雅思阅读真经 2》是我在新航道的时候创作的：

其实没有什么好谈的。这并不是我最喜爱的一本书，这本书的应试性太强。亲爱的朋友，如果你看到这里，请你在书架的旁边去寻找另外一本书——《雅思词汇真经》。那本书的写作研究过程很快乐，也是我最中意的。相信它能给你一个全新的对单词的认识，让你体会到英语学习的快乐。

如果你仍执意要拥有现在手中这本书，那么请你至少在考前一个月把本书做完，在考前一周再把书中所有的文章看一遍。同时强烈建议考试当天携带本书，进考场之前再很快的浏览一次。如果你还做过《雅思阅读真经 1》的话，那么你极有可能在真实考试中碰到相关背景内容的文章。可能性有多大呢？请你根据"雅思阅读考试真题题库分析"一文中的表格自己分析判断。

关于本书，就不再多言了。

要致谢的朋友是很多的：胡敏、杨琦、Kirk Kenny（彭加汉）、John A Gordon（王渊源）、郑俊斌、张皓、李鑫、赵文博、曹旼炜、刘薇等雅思梦之队全体老师，无忧雅思网管兄，以及张曲波、蔡箐、张桂华等。当然还有我教过的数字不好统计的所有学员。没有他们的鼓励支持以及带来的感动，我可能还不知正在哪里闲游逍遥，何来这本书呢？

《雅思阅读真经 1.2 精编版》是海纳领域策划编辑的，从挑选、编辑和排版上都让我很满意。风雨过后，我们想用心做出一批中国的精品英语教材。

刘洪波

2007 年 9 月

目录

雅思阅读真题题库分析

2004年《雅思阅读真经》第一次出版后4个月立即告罄。出版部门措手不及，紧急加印。就在这段没有正版的日子里，盗版《真经》独领风骚……

有一次课间休息，刚跨出教室，一商贩就在不远处手执一册盗版《雅思阅读真经》冲我叫嚣兜售，说什么八元一本，印刷质量比正版还好。搞得我哭笑两难。

走近细问，那商贩头头是道，为我剖析该书特点。其中还真有一语中的："雅思阅读嘛，翻来覆去考，题库小。"当时让我大吃一惊，感叹海水不可斗量。

关于雅思阅读真题题库的特点，请读者自己观察分析下面六个表格。

《雅思阅读真经1》文章目录

面试营销	广告营销	眼镜蛇毒	婚姻危机
口译笔译	科学欺骗	校园暴力	圆顶房屋
海事法令	火山喷发	日本宝塔	染料颜料
妇女媒体	古代钱币	核能飞船	蜘蛛吐丝
蝴蝶农场	自然韵律	电影历史	海底热能
法律顾问	迷失大陆	数码电视	经济消费
应用语言	摩斯电码	大麻危害	动物意识
拯救鲑鱼	宇宙哲学	深海奇船	数学发展
炼金术士	医生受贿	噪音污染	皮肤癌变
英国文化	伦敦之雾	驯服闪电	智力研究

《雅思阅读真经2》文章目录

提高阅读速度	昆虫飞行进化	妇女文盲和婴儿死亡率
儿童多动症研究	摩天大楼	老龄职工
口译	气候变化对因纽特人影响	地图册
鸟类定向	钢化玻璃	改善非洲交通
阿斯旺水坝	考拉	电击心理实验
计时器的演变	飞机上打手机	儿童语言能力
飞机的原理和历史	蚂蚁的智力	美国移民史
鲑鱼	风筝建造金字塔	英国儿童缺乏锻炼

缉毒犬	公共交通发展	拉丁语对英语的影响
俄罗斯考古	交通对城市的影响	美国的垃圾回收

《雅思阅读真经 3》文章目录

龙涎香	气候与国家富裕	无线射频技术
地球磁场	香蕉进化	中古玩具
大脑训练	水獭	海岛考古
短信电视互动	英语拼写与改革	香水
手势	乌鸦制造工具	水利发展
英国绿色农业	蝴蝶保护色	美国航空管制
深海热沟	电子书	乐观与健康
蚂蚁防虫	燃料电池	外星智慧
冰川时期	恐龙研究	交通堵塞
沉船保护	雪崩	英国建筑

2004 年全年中国考区雅思考试阅读文章目录

考试时间	第一篇	第二篇	第三篇
1.10	海底火山	英国绿色农业	语言变迁
1.17	社会行为	日本塔	语言变迁
1.31	自然韵律	钱币发展	数字起源
2.14	摩天大楼	澳洲疗法	运动员
2.21	阿斯旺水坝	校园暴力	医疗保健
2.28	老龄职工	国际贸易	眼镜蛇毒
3.13	钢化玻璃	公共交通	地图发展
3.20	工作家庭	公共交通	医疗保健
3.27	蚂蚁智商	澳洲疗法	欧洲森林保护
4.03	海底火山	校园暴力	运动员
4.17	儿童热带雨林	汽车发展	数字起源
4.24	校园暴力	运动员	海底火山
5.15	计时器	汽车发展	医疗保健
5.22	钢化玻璃	纸币发展	运动员
5.29	药品推销	钱币发展	欧洲森林保护
6.12	儿童热带雨林	激励实验	运动员
6.19	微波桥梁	公共交通	欧洲森林保护

6.26	外星生物	阿斯旺水坝	地图发展
7.10	面试技巧	眼镜蛇毒	公司营销
7.17	公共交通	澳洲疗法	语言变迁
7.24	老龄职工	公司营销	医疗保健
8.14	蚂蚁智商	校园暴力	数字起源
8.21	蝴蝶农场	澳洲疗法	盲人符号
8.28	日本塔	公共交通	语言变化
9.11	道路建设	钢化玻璃	拯救鲑鱼
9.18	阿斯旺水坝	汽车发展	动物思维
10.16	风筝建造金字塔	公司营销	农田生态管理
10.23	儿童多动症	拯救鲑鱼	科技英语
10.30	老龄职工	学生惩罚	青少年学习语言
11.13	人类与动物绝种	运输的发展	潮流消费
11.20	蝴蝶农场	钱币发展	海底探测船
11.27	日本数学教育	纸币发展	海底探测船

2005年全年中国考区雅思考试阅读文章目录

考试时间	第一篇	第二篇	第三篇
1.8	蝴蝶农场	电压对人体的心理实验	莫斯密码
1.15	强化玻璃	纸币发展史	科技英语
1.22	澳洲考拉	俄罗斯考古	海底探测船
2.5	蚂蚁智力	运动与英国青少年健康	公路建设
2.19	修建城堡	未来汽车发展	妇女文盲婴儿死亡
2.26	儿童多动症	运动与英国青少年健康	气候影响因纽特人
3.5	老龄职工对公司作用	国际贸易与运输业	妇女文盲婴儿死亡
3.12	日本教育	伦敦大雾	消费心理
3.19	公共交通工具发展史	运动与英国青少年健康	自然韵律
4.2	风筝建金字塔	伦敦大雾	动物的思考与直觉
4.9	先天后天	电影发展史	科技英语
4.16	先天后天	管理职位	海底探测船
5.14	旅游业与经济	水资源短缺	飞机历史
5.21	同声翻译	电子书 E-book	欧洲森林保育
5.28	英国的一种草	电影发展史	老年人疾病和原因
6.11	蝙蝠	艺术随时间的变化	语言的变化

6.18	世界粮食	圆顶建筑	昆虫翅膀
6.25	大脑训练	伦敦大雾	蚂蚁智力
7.9	男女分校	各国古代钱币	莫斯密码
7.16	蝴蝶农场	美国移民史	英国战后农业发展
7.23	日本的塔	美国垃圾处理	儿童语言能力
8.6	计时器发展史	外语对商业的影响	老年人疾病和原因
8.13	人对自然进化的影响	地图发展史	消费心理
8.20	生物韵律	俄罗斯考古	海底探测船
9.3	一种要灭绝的植物	各国古代钱币	飞机移动电话
9.10	口译	孩子缺乏锻炼	鸟的定位方式
9.17	日本塔	照相机的使用	如何收集蚂蚁
10.15	人群的聚集	语言在各领域的要求	宠物
10.22	大脑训练	鲑鱼繁殖	噪音对人的影响
11.12	考拉	美国废物回收	盲人问题研究
11.19	一种植物	美国移民史	中世纪的玩具
11.26	风筝金字塔	亚洲移民去欧洲	公路建造
12.3	旅游的发展和影响	科学作弊	欧洲森林保护
12.10	世界旅游业的发展	伦敦大雾	记忆方法
12.17	蝙蝠和雷达	厄尔尼诺现象	动物的思考

2006 中国考区雅思考试阅读文章目录

考试时间	第一篇	第二篇	第三篇
06/01/07	老龄职工	水利发展	因纽特人
06/01/14	旅游业的发展史	节能建筑	抓蚂蚁
06/01/21	蝙蝠 & 回声定位	语言与商业	生物杀虫
06/02/11	澳洲运动	英国绿色农业	妇女文盲和婴儿死亡率
06/02/18	农药和产量	关于艺术	非洲修建公路
06/02/25	拥挤与密度	美国垃圾回收	昆虫飞行进化
06/03/11	大脑训练	英国儿童缺乏运动	欧洲森林保护
06/03/18	育儿观念的改变	伦敦大雾	保存网络资料
06/03/25	口译	空间和权利	天才
06/04/08	男女合校	地图发展史	因纽特人
06/04/22	蚂蚁智力	古代钱币	电子书
06/04/29	化肥土壤	纸币的发展	小班教学研究

06/05/13	法国城堡建筑	科学中的欺骗行为	燃料电池
06/05/20	大脑训练	乌鸦制造工具	英语拼写与改革
06/05/27	香蕉	艺术变化	视觉盲点
06/06/10	蝴蝶保护色	美国航空管制	沉船保护
06/06/17	龙涎香和琥珀	英国儿童缺乏锻炼	英语发音的演变
06/07/08	水獭	生物杀虫	燃料电池
06/07/22	交通的发展	气候与国家富裕	抓蚂蚁
06/07/29	交通堵塞	阿拉斯加鲑鱼保护	面部表情
06/08/05	海底研究	电子书	氢能源动力
06/08/12	交通拥堵	空间和权利	短信互动电视
06/08/26	香蕉	摄影与绘画	味觉和嗅觉
06/09/02	日本宝塔	伦敦烟雾	动物灭绝
06/09/16	儿童后天教育	水污染处理	法国工业时代电影
06/09/23	美国肥胖症	地图制作	沙漠植物
06/10/14	城市公共交通	新陈代谢与寿命	美国港湾环境污染
06/10/21	农作物的发展	小提琴	30 年代科幻片
06/10/28	磁场研究	俄罗斯考古	保存网络资料
06/11/04	日本儿童教育	业余科学家的数据价值	部落基因研究
06/11/18	手势的发展	电脑控制汽车	教学方法实验
06/11/25	生物钟	香水	阅读法
06/12/02	恐龙灭绝	英国农业	拯救濒危语言
06/12/09	龙涎香和琥珀	美国垃圾处理	生物杀虫剂
06/12/16	乐观与人类健康	澳大利亚更新能源	雪崩的研究



雅思阅读

高分策略

雅思阅读高分策略

雅思阅读考试中取得高分并不难。

首先，要深入透彻地理解雅思阅读考试的表面形式与实质特点。

然后，有针对性地培养雅思阅读能力和解题技巧，做到阅读实力的提升和十大题型解题技巧的完美结合。

下文分述之。

1 表面形式

◆ 3 个部分

G 类阅读：第一部分通常有两篇较短的文章，阅读的是提供某种产品或服务的基本信息的广告类文章；第二部分稍复杂，阅读短信息，内容多为有关学习课程、学校介绍的信息；第三部分最难，阅读一篇篇幅较长的学术类文章。

A 类阅读：三个部分分别为三篇长文章，每篇长度在 900 – 1000 个单词左右，学术类科普读物。

◆ 40 道题

A 类和 G 类阅读考试均为 40 道题。答案要求用铅笔填在答题卡上。

◆ 60 分钟

A 类和 G 类阅读考试时间均为 60 分钟，紧接在雅思听力考试之后。阅读考试无额外的时间誊写答案。所以考试时答案应直接写在答题卡上。

◆ 10 种题型

雅思考试官方按题型形式分出 10 种题型，但针对中国考生的学习习惯特点，培训机构一般在雅思教学培训中按解题思路的不同分为下面 10 种题型进行分别讲解。

英文名称	中文名称
List of Headings	标题对应题
True/False/Not Given	正误及无关判断题
Multiple Choice	多项选择题
Summary	摘要/完形填空题
Matching	配对题
Sentence Completion	完成句子
Short-answer Questions	简答题
Diagram (Picture) Completion	图形填空
Flowchart Completion	流程图填空
Table Completion	表格填空

难 ↕ 易

◆ 9 分

学术类阅读

正确题数	分数段
1	1
2 – 3	2
4 – 9	3
10 – 15	4
16 – 22	5
23 – 28	6
29 – 35	7
36 – 39	8
40	9

普通培训类阅读

正确题数	分数段
1 – 2	1
3 – 5	2
6 – 11	3
12 – 17	4
18 – 25	5
26 – 34	6
35 – 37	7
38 – 39	8
40	9

2 实质特点

◆ 考试目的

G 类：Survival，考查考生在英语国家中生活所必备的阅读能力。

A 类：Study，考查考生通过学术话题文章的阅读掌握所需信息，理解并获取知识的能力。

◆ 文章题材

G 类文章内容与日常生活息息相关。文章来自于布告、广告、官方文件、小册子、报纸、说明书、时间表、杂志，以及学校的各种规章制度等。

A 类文章内容主要由选自世界各大重要媒体（相关网站如：www.nature.com; www.

nationalgeographic.com; www.economist.com）的文章改写而成。内容涉及经济、教育、科技、医学、环境、能源、地质、海洋、动植物等方面问题。

◆ **文章体裁**

G 类：说明文。

A 类：说明文和议论文，三篇文章中必然有一篇包含详细的议论。

◆ **考试特点**

雅思阅读部分由剑桥大学考试委员会和澳大利亚考试中心负责试题的编写，所以阅读试题以前多以英国和澳大利亚的生活背景为主，但现在的选材已更趋于国际化。

考试文章以大众题材为主，不涉及专业性很强的文章，以免给某些专业的考生造成优势或劣势。

除选材多样化以外，尽量设计多层次、多范畴信息题型，从不同角度考查考生理解把握文章的能力。

雅思阅读考试没有专门设计语法和词汇的专项题型，这是有别于其他外语考试形式的一个重要特征。相反，在一些较难的文章之后还附带有一些提示的生词表或注解（Glossary），以帮助考生理解某些关键词语和定义，从而更好地理解全文。这是因为雅思阅读考试既不是考查考生是否能理解每一个单词、每一句话的确切含义，也不是考查考生在某一学科的专业能力，而旨在评估考生的综合英语阅读能力。

◆ **重点考查技能**

雅思 G 类考试的题目涉及考生在英语国家必备的生存技能，即是否具备获取、理解并处理基本信息的能力。就考核技能而言，雅思 G 类阅读主要涉及把握主旨、定位细节和比较信息，较少考核推理、判断与得出结论等学术技能。

雅思 A 类阅读最大特点是阅读量大。三篇文章，最常见的文章长度为 900 个单词左右一篇，大部分考生在学习雅思之前很少接触此类长度的文章。因此，如何在 10 分钟内快速的浏览完一篇文章，把握文章结构大意，留出更多的时间做题是提高雅思阅读成绩的关键。雅思阅读还强调考生 reading with purpose 的能力，在大量的信息中找到自己想要的信息。这对考生今后对付国外大学教授布置的如山的课后阅读材料是大有裨益的。而且，我们“有幸”生活在信息时代，每个人都不缺乏信息，相反都是 information overloaded。那么雅思阅读其实培养了我们一种基本的生存能力：如何在信息的海洋中找到自己想要的部分，而不是被信息所包围，最终遭遇“灭顶之灾”。

所以，A 类阅读的考核重点是：阅读文章时能正确理解文章，把握文章主旨和结构；做题时能回原文迅速找到考点具体信息，理解文中的主要事实和某些特定的细节，根据上下文猜出某些词句大意，弄清句子间的逻辑关系，能进行一定的判断推理。

3 雅思阅读实力提升

阅读实力的提升绝非一朝一夕之功。单词量和对英语语法的熟练程度是各类英语阅读考试高分的基石。雅思亦是如此。通常来说，达到大学英语六级水平的考生，其单词量（5500左右）和语法程度达到雅思阅读的基本要求，再通过对雅思阅读特点和方法的掌握，可望在短期内达到6分以上的水平。

◆ 单词

根据自己的英语基础制定出每天能够坚持的、切实可行的背单词计划。

结合阅读文章记忆单词是颇为有效的方法。如脱离语言环境，孤立地背词汇，就很容易把单词的意义和正确用法遗忘或混淆。而且枯燥的单词书、字母表很容易让人疲倦和产生挫败感。在精读雅思文章的同时背单词，除了单词的收获，还能深入理解文章中的各类人文常识、趣味科普知识，从而产生每天坚持阅读、坚持背单词的兴趣和动力。另外，有效背记单词的另一个重要原则是：一定要反复多遍。背过的单词一定要定期地重复复习。

◆ 语法

雅思的语法掌握侧重对句子的理解，应学会从句子的主干成分——主谓结构入手，对并列句、比较句、指代句、复合句和双重否定句有充分的把握，注意人称、语态在句子中的变化，并结合句子上下文，正确地掌握其要表达的意思。要逐渐培养将一个长句子读成一个相对短的句子，即长句短读的能力。读完一个长句后自己能总结归纳，提炼其陈述的要点。

◆ 加大阅读广度

以往在和雅思阅读8分以上的高分学员的交流中发现，学员们的单词量大小可能有所差异，但共同点却很明显：英语的累积阅读量大。有的是考前通读过多种雅思阅读材料；有的是过去读过TOEFL、GRE和GMAT的各类文章，有的是因为工作的需要每天上网快速阅读英文参考文献……所以，积累和扩大自己的英语阅读量是迈向高分的必由之路。G类考试的阅读中前两部分通常是实用性强的功能性短文，如菜单、产品说明、通知、住宿安排和广告等，非常贴近西方的实际生活，但对国内绝大多数考生而言很陌生。建议争取每天阅读一定量的原版英文报刊、书籍，如*Time*、*Reader's Digest*等，尤其注意其中的各类广告。而针对A类阅读则应该注意多阅读篇幅较长的科普文章或学术性议论文，建议每天坚持半小时以上浏览www.nature.com、www.nationalgeographic.com、www.economist.com、www.newscientist.com等网站。它们的文风、常用词汇和句子结构与雅思A类阅读相似。

◆ 提高阅读速度

雅思考试的阅读部分，无论是A类还是G类都是同时测试考生的阅读速度和理解的精确度。而如何快速地阅读完长文章，留出充足的时间回答各类题型，是考生必然面临的

一个难题。要想提高阅读速度首先要改掉影响阅读速度的不良习惯。针对大多数考生的通病，提出下面四点注意事项：

1 扩大眼睛扫描的宽度。要达到雅思阅读的速度，请注意训练自己一眼看过的能力，至少要阅读到 3 – 5 个单词。

2 阅读过程中只使用眼睛和大脑两大器官。不要用手指和笔引导阅读，不要小声读出来（使用了嘴和耳朵），不要在心中默读（默读说明你一眼只看到一个单词）。

3 遇到生词不用紧张，学会通过上下文猜测大意。

4 有重点地阅读，把握文章结构和大意。

◆ 培养重要考核能力

有了以上基础，还要有针对性地训练和提高雅思阅读所要求的各种阅读能力。按照各种阅读能力对获得雅思高分的重要性排序，它们依次为：

把握长文章结构（Understanding framework of a passage）
快速浏览长文章 （Skimming）
扫描特定信息 （Scanning）
理解复杂句子结构（Understanding complex sentence structures）
通过上下文猜测词义 （Understanding meaning from context）
形成概念（Forming a mental image）

4 雅思阅读十大题型核心解题思路之点到为止

雅思考试官方按题型形式分出 10 种题型，但针对中国考生的学习习惯特点，培训机构一般在雅思教学培训中按解题思路的不同分为下面 10 种题型进行分别讲解。

◆ List of Headings

文章由若干段话组成，要求给每段话找个小标题。小标题即指该段话的段落大意、中心思想、主旨。

点评：正确的 **Heading** 通常为由该自然段中心句改写而成的名词性短语。

【例】

文章：

An organization is only as good as people it employs. Selecting the right person for the job involves more than identifying the essential or desirable range of skills, educational and professional qualifications necessary to perform the job and then recruiting the candidate who is most likely to possess these skills or at least is perceived to have the ability and predisposition to acquire them. <u>This is a purely person/skills match approach to selection.</u>

答案： Heading：The person-skills match approach to selection

◆ True/False/Not Given

题目为若干个陈述句，要求根据原文所给出信息，判断每个陈述句是对 (Ture)、错 (False)、还是未提及（Not Given)。

点评：题目通常陈述 A 事物与 B 事物之间的关系，而关系通常被设置为考点。通过题目中的关键词找到原文该题出处，作对比理解。

【例】

原文：Women could not take part and were forbidden, on pain of death, even to attend the games.

题目：The spectators, as well as the participants, of the ancient Olympics were all male.

答案：True

◆ Summary

该类题目是一小段文字，是原文或原文中的几个段落主要内容的摘要改写，摘要中留出几个空格要求考生填空。常分为填空式和选项式两种考法。

点评：通过空格前后的信息回原文定位，在原文找到答案后注意填在空格中的词性修改。

【例】

文章：

This Atlantis was a noble, sophisticated society that reigned in peace for centuries, until its people became complacent and greedy. Angered by their fall from grace, Zeus chose to punish them by destroying Atlantis.

题目：Plato ascribed the destruction of the continent to Atlanteans' *complacency* and *greed*, which incurred punishment from the Greek God.

◆ Matching

通常由三部分组成：题目要求、选项集合、题目集合。要求考生根据某种关系将题目与选项配对。题目不具有顺序性，即题目的顺序和原文的顺序不一致。

点评：看清题目和选项间的关系，短暂记忆题目关键词。重点考查 **Scanning** 能力，即很快从文章中找到所需信息的能力，较少考理解。

◆ Multiple Choice

多项选择题。

点评：在题干中找出关键词，回原文出处，找到心中的答案，再对比 **ABCD** 四个选项。

◆ Sentence Completion

两种考试形式：题目是一个陈述句，但留有一个或两个空格，要求根据原文填空；或给出句子前面部分，要求在后面的若干选项中选择正确的表达补全题目句子。

点评：填空式 **Sentence Completion** 就是一句话 **Summary**；选择式 **Sentence Completion** 注意句子的语法语义的前后一致性。

【例】

题目：Doctors are unsure whether statins can **benefit** ______.

选项：

A a variety of brand names

B people with low levels of cholesterol

C breakdown of muscle tissue

D normalize high blood pressure

E a statin ingredient

F allow statins to be sold over the counter

答案：B （Statins 这种药只能对病人有好处）

◆ Short Answer

每个题目都是一个特殊问句，要求根据原文作出回答，对答案有字数要求。

点评：注意特殊疑问词本身。

【例】

题目：**What** are the **dates of the two major eruptions of Mount** St. Helens before 1980?

答案：About 1900 B.C. and around A.D. 1500. （回原文找到答案必然为两个时间并列）

◆ Diagram(Picture)/Flowchart/Table Completion （填图填表题）

题目中有一个图表或一个表格，其中有一些信息，留出空格，要求根据文章填空。

点评：通常较简单，涉及答案信息常集中于文章中间的一个段落，注意快速答题。

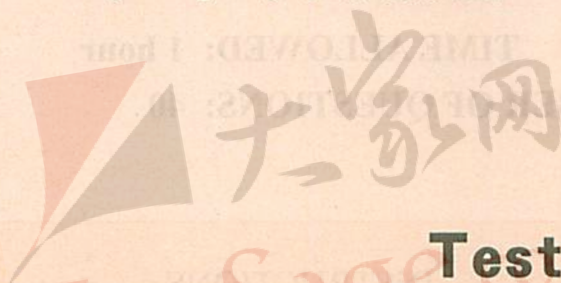
最后提醒各位考生，通过雅思阅读的备考复习训练而获得的高级英语阅读能力将使您终身受益，这也正是雅思阅读考试的终极目标。

Reading is to the mind what exercise is to the body.

祝大家考试成功！

雅思阅读

水平自测题



Test Yourself

INTERNATIONAL ENGLISH LANGUAGE TESTING SYSTEM

ACADEMIC READING
TEST 1

TIME ALLOWED: 1 hour
NUMBER OF QUESTIONS: 40

INSTRUCTIONS
WRITE ALL YOUR ANSWERS ON THE ANSWER SHEET

The test is in 3 sections:

Reading Passage 1	Questions 1 – 13
Reading Passage 2	Questions 14 – 26
Reading Passage 3	Questions 27 – 40

Remember to answer all the questions. If you are having trouble with a question, skip it and return to it later.

READING PASSAGE 1

*You should spend about 20 minutes on **Questions 1 – 13** which are based on Reading Passage 1 below.*

The Geodesic Dome — The House of The Future?

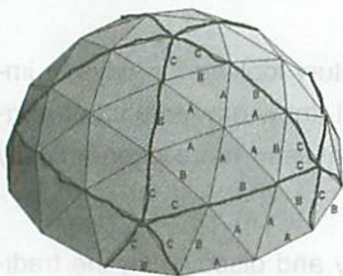
R. Buckminster Fuller spent much of the early 20th Century looking for ways to improve human shelter by applying modern technological know-how to shelter construction, making shelter more comfortable and efficient, and more economically available to a greater number of people.

After acquiring some experience in the building industry and discovering the traditional practices and perceptions which severely limit changes and improvements in construction practices, Fuller carefully examined, and improved, interior structure equipment, including the toilet, the shower, and the bathroom as a whole. He studied structure shells, and devised a number of alternatives, each less expensive, lighter, and stronger than traditional wood, brick, and stone buildings.

In 1944, the United States suffered a serious housing shortage. Government officials knew that Fuller had developed a prototype of family dwelling which could be produced rapidly, using the same equipment which had previously built war-time airplanes. They could be "installed" anywhere, the way a telephone is installed, and with little additional difficulty. When one official flew to Wichita, Kansas to see this house, which Beech Aircraft and Fuller built, the man reportedly gasped, "My God! This is the house of the future!"

Soon, unsolicited checks poured in from people who wanted to purchase this new kind of house, but Fuller was never able to get it into full production. This was due to many obstacles such as only union contractors were able to hook the houses up to water, power and sewers in many cities. However, because the houses were already wired and had the plumbing installed by the aircraft company, many construction trade unions made it clear that they would not work on the houses. There were also in-house differences between Fuller and the stockholders. Fuller did not feel the house design was complete; there were problems he wanted to fix. But the stockholders wanted to move ahead. However, the main obstruction was obtaining the financing for the tooling costs, which were purposefully not included in the negotiations with investors. No bank would finance the project with union problems and stockholder battles.

After the war, Fuller's efforts focused on the problem of how to build a shelter which is so lightweight, it can be delivered by air. Shelter should be mobile which would require great breakthroughs in the weight-reduction of the materials. Technology would have to follow nature's design as seen by the spider's web which can float in a hurricane because of its high strength-to-weight ratio. New shelter would have to be designed that incorporates these principles and that was Fuller's intent.



One of the ways Buckminster Fuller would describe the differences in strength between a rectangle and a triangle would be to apply pressure to both structures. The rectangle would fold up and be unstable but the triangle withstands the pressure and is much more rigid — in fact the triangle is twice as strong. This principle directed his studies toward creating a new architectural design, the geodesic dome, based also upon his idea of "doing more with less". Fuller discovered that if a spherical structure was created from triangles, it would have unparalleled strength.

The sphere uses the "doing more with less" principle in that it encloses the largest volume of interior space with the least amount of surface area thus saving on materials and cost. Fuller reintroduced the idea that when the sphere's diameter is doubled it will quadruple its square footage and produce eight times the volume.

The spherical structure of a dome is one of the most efficient interior atmospheres for human dwellings because air and energy are allowed to circulate without obstruction. This enables heating and cooling to occur naturally. Geodesic shelters have been built all around the world in different climates and temperatures and still they have proven to be the most efficient human shelter one can find.

More specifically, the dome is energy efficient for many reasons: its decreased surface area requires less building materials; exposure to cold in the winter and heat in the summer is decreased because, being spherical, there is the least surface area per unity of volume per structure; the concave interior creates a natural airflow that allows the hot or cool air to flow evenly throughout the dome with the help of return air ducts; extreme wind turbulence is lessened because the winds that contribute to heat loss flow smoothly around the dome; it acts like a type of giant down-pointing headlight reflector and reflects and concentrates interior heat. This helps prevent radiant heat loss.

The net annual energy savings for a dome owner is 30% less than normal rectilinear

homes according to the Oregon Dome Co. This is quite an improvement and helps save the environment from wasted energy. Domes have been designed by Fuller and others to withstand high winds and extreme temperatures as seen in the Polar Regions.

Many dome manufacturers offer various designs in geodesic dome housing with little assembly time required. Some houses can be assembled in less than a day with others taking up to six months. Many also come in dome kits that buyers can build themselves or with the help of friends.

R. Buckminster Fuller's first worldwide acceptance by the architectural community occurred with the 1954 Triennale where his cardboard dome was displayed for the first time. The Milan Triennale was established to stage international exhibitions aimed to present the most innovative accomplishments in the fields of design, crafts, architecture and city planning.

The theme for 1954 was Life Between Artifact and Nature: Design and the Environmental Challenge, which fit in perfectly with Fuller's work. Fuller had begun efforts towards the development of a Comprehensive Anticipatory Design Science, which he defined as, "the effective application of the principles of science to the conscious design of our total environment in order to help make the Earth's finite resources meet the needs of all humanity without disrupting the ecological processes of the planet." The cardboard shelter that was part of his exhibit could be easily shipped and assembled with the directions printed right on the cardboard. The 42-foot paperboard Geodesic was installed in old Sforza garden in Milan and came away with the highest award, the Gran Premio.

Questions 1 – 2

Choose the appropriate letters ***A – D*** *and write them in boxes 1 – 2 on your answer sheet.*

1 In 1944, government officials were interested in Fuller's family dwelling because ________.

- **A** they had a housing shortage
- **B** it is the house of the future
- **C** it could be produced rapidly and installed easily
- **D** all of the above

2 Fuller's family dwelling was not fully produced mainly because ________.

- **A** aircraft company installed these houses
- **B** there were financing problems
- **C** union contractors did not support Fuller
- **D** Fuller and the stockholders held different ideas

Questions 3 – 7

Classify the following descriptions as referring to

The sphere	***S***
The rectangle	***R***
The triangle	***T***

Write the appropriate letters in boxes 3 – 7 on your answer sheet.

NB *You may use any answer more than once.*

3 doing more than less

4 stable

5 allowing natural air circulation

6 rigid

7 folding

Questions 8 – 13

Do the following statements agree with the information given in Reading Passage 1?

In boxes 8 – 13 on your answer sheet write

TRUE	*if the statement is true*
FALSE	*if the statement is false*
NOT GIVEN	*if the information is not given in the passage.*

8 A geodesic dome is basically a spherical structure created from rectangles.

9 It has been proved that the geodesic dome is the most efficient human shelter.

10 Domes are the environment-friendly building.

11 Some scientists set up domes in the Polar Regions.

12 Domes are much cheaper than traditional houses.

13 Fuller won the Gran Premio in 1954.

READING PASSAGE 2

*You should spend about 20 minutes on **Questions 14 – 26** which are based on Reading Passage 2 below.*

Questions 14 – 18

*Choose the most suitable headings for paragraphs **B – F** from the list of headings below.*

*Write appropriate numbers **(i-x)** in boxes 14 – 18 on your answer sheet.*

NB *There are more headings than paragraphs, so you will not use them all.*

List of Headings

i	Clothing symbolising status
ii	The factors determining the dye's quality
iii	The invaluable colour
iv	The importance of plants in ancient times
v	From family to industry
vi	The value of colours
vii	Dyestuff sources in the past
viii	Availability and durability of a dye
ix	The competitive and secret industry
x	Pigments, insoluble colouring materials

Example	*Answer*
Paragraph G	x

14 Paragraph B

15 Paragraph C

16 Paragraph D

17 Paragraph E

18 Paragraph F



Dyes and Pigments

A

Dyeing is a process of colouring materials, or cloth fibers, whereby the colour becomes part of the fiber. The fastness of the colour, or its permanency, depends upon the dye and the process used. True dyeing is a permanent colour change, and the dye is absorbed by, or chemically combined with, the fiber.

B

In ancient times all the dyes used were natural; actually, this was true up until mid-1800. The dyestuffs came from a variety of natural sources, some commonly available, others rare or difficult to produce. Some of the common dyes included logwood or quercitron, fustic, woad, and indigo. An example of the rare dyes would be cochineal and Tyrian purple. Collectively, these substances are called dyestuffs, and were occasionally traded as a commodity. The dyestuffs were extracts from plants, mollusks, insects, woods, or naturally occurring minerals. There are many plants which produce dye suitable in the dyeing process, and many were heavily cultivated. Madder and woad were grown in Europe specifically for their dyeing properties. Saffron was also extensively grown in Anatolia for its yellow dye. Probably one of the most famous dyes was Tyrian purple, from a Mediterranean shellfish. The Phoenicians of Tyre, in Lebanon, produced this very expensive dye long before written history began. Many other areas had special dyes which were famous in antiquity.

C

The value of a dye is not just its availability, but also its fastness or durability against daily use. It must withstand washing, wearing, sunlight, perspiration, without losing an appreciable amount of its colour. The colour, and its brightness, also helped determine the dye's value. Premium colours were purple, blue, and bright shades of red.

D

There are two classifications of dyeing, the home craft and the trade, or industrial, dyeing. The manufacturing of clothing, the spinning, weaving and embroidery, tended to stay within the family unit. An exception to this would be the carpets made in Anatolia and Persia, for example, or the very fine, sheer linen woven in Egypt. But the manufacture of dyes and their use in dyeing yarn and cloth soon became an industry, supporting large numbers of people, even entire cities. The art of dyeing was one of the earliest arts known to man after he became civilized. Trade dyeing was, however, a highly competitive business. These were the professionals of the ancient world when it came to dyed cloth. Many of the processes were closely guarded secrets, and many of the special skills were handed down over generations. The ingredients may come from far away; the tools may be specialized and the process often was steeped in superstition.

E

As far back as man can historically see, rulers have set themselves apart from everyone else by wearing exotic and rare items, and dyed clothing was very early a part of this status proclama-

tion. Still today the important and the wealthy prefer to wear items not available to all. In Egypt, the pharaohs wore specially made clothing, dyed with colours difficult to obtain. Dyed fabrics from tombs of early Egyptian attest to the antiquity of the dyers art.

F

In the ancient Greek and Roman world, Tyrian purple became the colour of choice for rulers and emperors. The dye was extremely expensive, therefore, available to only a few. When in later times merchants, considered unimportant, became wealthy enough to buy purple-dyed cloth, laws were passed to prevent their diluting the impressiveness of the colour. Only rulers, or emperors, were allowed to wear purple. Later, however, the law was changed to include the rulers' family; then senators; and so on, eventually losing its status. This is where the phrase "born to the purple" came from.

G

The word pigment comes from the Latin "pigmentum" meaning coloured material. Pigments are generally distinguished from dyes as colouring materials on the basis of their soluble ability (solubility) characteristics. Pigments are used mainly in the colouration of paints, printing inks and plastics, although they are used to a certain extent in a much wider range of applications including textiles, ceramics, paper, and cosmetics. In contrast to dyes, pigments are highly insoluble colouring materials, which are incorporated into an applications medium by dispersion, and they remain as discrete solid particles held mechanically within a polymeric matrix. Pigments are thus required to resist dissolving in solvents, which they may contact in application to minimize problems such as 'bleeding' and migration. In addition to solvent resistance, pigments are required to be fast to light, weathering, heat and chemicals such as acids and alkalis to a degree dependent on the demands of particular application.

Natural inorganic pigments, derived mainly from mineral sources, have been used as colourants since pre-historic times and a few, notably iron oxides, remain of some significance today. The origins of the synthetic inorganic pigment industry may be traced to the introduction of Prussian blue in the early 18th century, predating the synthetic organic colourant industry by some 150 years. The organic pigments are the oxides, sulfides, hydroxides, silicates, sulfates and carbonates of metals. The colour of a pigment is due to its interactions with light by scattering and absorption.

The synthetic organic pigment industry emerged towards the end of the 19th century out of the established synthetic textile dyestuffs industry. Many of the earliest organic pigment were known as 'lakes'. These products were prepared from established water soluble dyes by precipitation on to an insoluble inorganic substrate. A further significant early development in organic pigments was the introduction of a range of azo pigments. One of the most critical events in the development of the organic pigment industry was the discovery, in 1928, of copper phtalocyanine blue. This was the first pigment to offer the outstanding intensity and brightness of colour typical of organic pigments, combined with an excellence range of fastness properties, comparable with many inorganic pigments. Organic pigments generally provide higher intensity and brightness of colour than inorganic pigments. However, organic pigments are unable to provide the degree of opacity offered by most inorganic pigments which have the lower reflectance.

Questions 19 – 21

*Choose the appropriate letters **A – D** and write them in boxes 19 – 21 on your answer sheet.*

19 Among the following dye colours, which one had the superior value in the past?

A Yellow.
B Red.
C Blue.
D White.

20 The pharaohs wore specially dyed clothing, because ________

A it was difficult to obtain
B it was exotic and rare
C it distinguished them
D it attested to the antiquity of the dyers art

21 According to the passage, the phrase "born to the purple" refers someone who ________.

A has a royal birth
B is very wealthy
C extremely favors the purple colour
D was born with silver spoon

Questions 22 – 26

Complete the summary below.

*Choose **NO MORE THAN THREE WORDS** from the passage for each answer.*

Write your answers in boxes 22 – 26 on your answer sheet.

As colouring materials, the distinguished characteristic of pigments is that they are more …(22)… than dyes, and in the colouring process, dyes are …(23)… by the materials, while pigments work by …(24)…. Compared with inorganic pigments, organic pigments give colour higher …(25)…, but lower …(26)….

READING PASSAGE 3

You should spend about 20 minutes on ***Questions 27 – 40*** *which are based on Reading Passage 3 below.*

Spider Silk



Spider silk is not a single, unique material — different species produce various kinds of silk. Some possess as many as seven distinct kinds of glands, each of which produces a different silk.

Why so many kinds of silk? Each kind plays particular roles. All spiders make so-called dragline silk that functions in part as a lifeline, enabling the creatures to hang from ceilings. And it serves as a constant connection to the web, facilitating quick escapes from danger. Dragline silk also forms the radial spokes of the web; bridgeline silk is the first strand, by which the web hangs from its support; yet another silk forms the great spiral.

The different silks have unique physical properties such as strength and elasticity, but all are very strong compared to other natural and synthetic materials. Dragline silk combines toughness and strength to an extraordinary degree. A dragline strand is several times stronger than steel, on a weight-for-weight basis, but a spider's dragline is only about one-tenth the diameter of a human hair. The movie *Spider-Man* drastically underestimates the strength of silk — real dragline silk would not need to be nearly as thick as the strands deployed by the web-swinging hero in the movie.

Dragline silk is a composite material comprised of two different proteins, each containing three types of regions with distinct properties. One of these forms an amorphous (non-crystalline) matrix that is stretchable, giving the silk elasticity. When an insect strikes the web, the stretching of the matrix enables the web to absorb the kinetic energy of the insect's flight. Embedded in the amorphous portions of both proteins are two kinds of crystalline regions that toughen the silk.

Although both kinds of crystalline regions are tightly pleated and resist stretching, one of them is rigid. It is thought that the pleats of the less rigid crystals not only fit into the pleats in the rigid crystals but that they also interact with the amorphous areas in the proteins, thus anchoring the rigid crystals to the matrix. The resulting composite is strong, tough, and yet elastic.

Then, why doesn't a spider get stuck on its own web? Over the years, three explanations for this phenomenon have surfaced. The first invokes an oil, secreted by the spider, that serves as an anti-stick agent. The problem with this hypothesis is that such an oil has yet to be discovered.

The second scenario is based on the diversity of silks. Many webs include strands made of silks that are much less sticky than the others are. The non-sticky strands appear in the hub of the web, the radial spokes and the threads by which the web hangs from plants or other supports. Some researchers have thus posited that the arachnids use only these strands when navigating their webs. If you watch them in action, however, you will see that although they do seem to prefer the non-sticky strands, the spiders are able to move around freely, touching many of the strands, including the very sticky ones that spiral out from the hub.

The third explanation appears to solve the sticky-strand problem. In short, the legs of at least some spiders feature a disengaging mechanism that enables the arachnid to detach itself instantly from a sticky strand. This mechanism involves a clever anatomical adaptation. Each leg ends in a pair of "walking claws" that grasp vegetation, among other functions, but a third claw collaborates with associated spiny, elastic hairs to detach the leg from a sticky web strand. This third claw grasps the strand, pulls it against the elastic hairs, and pulls them further, cocking the mechanism. When the claw relaxes, the hairs rebound vigorously, throwing the strand away and springing the leg free.

Police, the military, physicians, and other groups are eager to obtain large quantities of dragline silk, which can be woven or compacted to make bulletproof clothing, replacement ligaments, medical sutures, fishing line, ropes for rock climbers, tethers to snag planes landing on aircraft carriers and myriad other products. It is impracticable to harvest sufficient quantities of silk from spiders due to their territorial nature, so biotechnologists have turned to other sources. The Canadian company Nexia has demonstrated that goats and cows can be genetically engineered so as to produce dragline silk in their milk. Using a clone of such goats, Nexia aims to produce a modified dragline silk, which they call BioSteel, to meet the many demands.

Questions 27 – 29

*Write **NO MORE THAN THREE WORDS** for each answer.*

27 Which organ of spiders produces silk?

....

28 What kind of silk helps spiders to escape from danger?

....

29 Name three features of dragline silk mentioned by the writer.

....

Questions 30 – 32

*Write **NO MORE THAN THREE WORDS** for each answer.*

Name three types of regions of proteins constituting dragline silk.

30 ....

31 ....

32 ....

Questions 33 – 37

Do the following statements agree with the information given in Reading Passage 3?

In boxes 33 – 37 on your answer sheet write

YES	*if the statement agrees with the writer*
NO	*if the statement contradicts the writer*
NOT GIVEN	*if there is no information about this in the passage.*

33 The spider discharges an oil to avoid sticking on its own web.

34 The spider uses only non-sticky strands when moving on the web.

35 Bridgeline silk belongs to non-sticky strands.

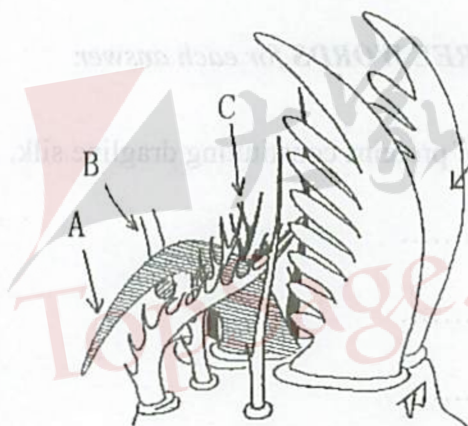
36 BioSteel is a biotechnological name for spiders' dragline silk.

37 According to the writer, the silk Spider-Man used in the movie is less strong than the real dragline silk.

Questions 38 – 40

Complete the diagram below based on the third explanation in Reading Passage 3.

Write ***NO MORE THAN THREE WORDS*** *for each answer.*



Example ***B:*** *the strand*

38 **A:** ....

39 **C:** ....

40 **D:** ....

Test Yourself

Reading Passage 1

IELTS 大虾必备

shelter	[ʃeltə] *n.* 遮蔽物、避难所
perception	[pə'sepʃən] *n.* 洞察力、了解 （相关单词 perceive *v.* --- perceptive *adj.*；它的动词、形容词、名词词形变化形式可以和下边三组单词共同记忆： receive *v.* --- reception *n.* --- receptive *adj.* deceive *v.* --- deception *n.* --- deceptive *adj.* conceive *v.* --- conception *n.* --- conceptive *adj.*）
severely	[si'viəli] *adv.* 严重地、严厉地 （相关单词：severe *adj.* --- severity *n.* 记得前边提到过的 SARS 是哪四个单词的首字母构成的缩略形式吗？）
prototype	['prəutətaip] *n.* 原型、模型
dwelling	['dweliŋ] *n.* 房屋、住宅、住处 （动词形式：dwell，dweller 表示"居民"，city dwellers 表示"城市居民、住在城里的人"。）
gasp	[gɑːsp] *vt.* 气喘吁吁地说
contractor	[kən'træktə] *n.* （建筑营造业的）承揽人、承包商 （contract 是名词，表示"合同、承包契约"，这里在它的后边加上表示人的词尾"-or"得到"签订合同的人"。）
hook	[huk] *vt.* 用钩固定、用钩连接
sewer	['sjuə] *n.* 下水道、排水沟 （sewer 里的固体或液体污物叫作 sewage。）
plumbing	['plʌmiŋ] *n.* 水管装置、管道工程 （plumber 表示"水管工"。）
stockholder	['stɔkhəuldə] *n.* 股东
obstruction	[əb'strʌkʃən] *n.* 妨碍、阻塞 （动词形式：obstruct。分两部分理解——ob-struct，表示"反对、抵抗＋堆积"，即"堆积［起一个类似掩体］以抵抗或反对…"，进一步引申得来上义。）
hurricane	['hʌrikən] *n.* （西印度群岛的）飓风、龙卷风 （其他要掌握的自然灾害包括：tornado"龙卷风"，tsunami"海啸"，typhoon"台风"，cyclone"旋风"，landslide"山崩"，avalanche"雪崩"，mudflow"泥流"，flood"洪水"，sandstorm"沙暴"，earthquake"地震"，drought"干旱"。）
intent	[in'tent] *n.* 意图、目的
rectangle	['rektæŋgl] *n.* 长方形、矩形 （rect 这个字根表示"直的"，因此这个单词的基本含义为"直的角"，现代英语中使用上义。）
spherical	['sferikəl] *adj.* 球（形）的 （名词形式 sphere 表示"球、球体"。）

unparalleled	[ʌn'pærəleld] *adj.* 无与伦比的 （un-parallel-ed 表示“不能＋相比拟、匹敌＋的”。）
enclose	[in'kləuz] *vt.* 围住、围起
quadruple	['kwɔdrupl] *vt.* 使成四倍 （quadru-ple 对应“四＋倍”；还记得本文前边见到的表示“三角形”的单词吗？动一下脑筋，“三倍”用英文该如何表达呢？显然是 triple 啦！）
concave	[kɔn'keiv] *adj.* 凹（入）的 （这里前缀 con- 表示加强意义，cave 作为字根表示“中空的”；而 concave 的反义词 convex 中前三个字母也为加强意义，vex 表示 vaulted 或 arched，即“弓形的、拱状的”，所以它表示“凸出的”。现在再想想为什么中文将 cave 这个单词翻译为“山洞”呢？由它“中空”的特点而来。）
duct	[dʌkt] *n.*（输送）管
turbulence	['təːbjuləns] *n.* 湍流、不规则的大气运动 （形容词形式：turbulent）
kit	[kit] *n.* 工具箱、成套用具
anticipatory	[æn'tisipeitəri] *adj.* 预想的、期望的 （相关单词：anticipate *v.* --- anticipation *n.*）
finite	['fainait] *adj.* 有限的、有限制的 （fin 表示“终点、末端”，类似英文单词 end 所表达的含义，有终点就意味着不能无限延伸、扩展，因此，这个形容词表示“有限的”，那么要表达“无限的”这个概念就只要在 finite 的前边加上否定前缀 in- 即可，即 infinite。）
disrupt	[dis'rʌpt] *vt.* 破坏、使混乱 （相关单词：disruption *n.* --- disruptive *adj.*）
ecological	[ˌekə'lɔdʒikəl] *adj.* 生态（学）的 （相关单词：ecology *n.* --- ecologist *n.*）

重点词汇回顾 ＋ 同义词扩充

shelter --- refuge, haven, asylum, sanctuary
severely --- harshly, sternly, strictly, rigorously
prototype --- archetype, examplar, original
dwelling --- house, abode, lodging, residence
obstruction --- obstacle, barrier, impediment, hindrance
incorporate --- contain, include, encompass, assimilate
intent --- intention, target, goal, objective, purpose
rectangle --- quadrilateral, lozenge, oblong, square
unparalleled --- unmatched, matchless, unequaled, incomparable
enclose --- encircle, enfold, surround, ring
concave --- hollow, dished, curved in
finite --- limited, restricted, set
disrupt --- disturb, upset, disorder, mess up

Reading Passage 2

IELTS 大虾必备

pigment	['pigmənt] *n.* 色素、颜料
fiber	['faibə] *n.* 纤维
dyestuff	['daistʌf] *n.* 染料
extract	['ekstrækt] *n.* 提炼物、精华 （字根 tract 表示"拉"，因此这个单词的基本含义为"拉出、拔出、取出"，这里充当名词，表示"从…中拉出或取出的东西"，引申为"提炼物、精华"。）
property	['prɔpəti] *n.* 性质、特性 （某人占有的 property 是他或她的财产，某事物占有的 property 是该物质的特性、性质。）
Mediterranean	[ˌmeditə'reinjən] *n.* 地中海的 （medi-terra-nean 表示"中间＋地、土地＋形容词词尾"，由此得来"地中海的"这个含义。那么单词 Medieval 又表示什么呢？ Medi-ev-al 表示"中间＋时代＋形容词词尾"，指"中世纪的"。）
antiquity	[æn'tikwiti] *n.* 古代
durability	[ˌdjuərə'biliti] *n.* 耐久性、耐用性 （形容词形式：durable。字根 dur 表示"持续、持久"，加上表示"可…的"这个形容词词尾 -able 之后，基本含义为"可持续很久时间的"，这里是名词形式，引申为上义。）
perspiration	[ˌpə:spə'reiʃən] *n.* 汗（水） （动词形式：perspire）
premium	['primjəm] *adj.* 特佳的、特级的
shade	[ʃeid] *n.* 阴暗部分、暗影
craft	[kra:ft] *n.* 工艺、手艺 （单词 craftsman 表示"工匠、手艺精巧的人"。）
superstition	[ˌsju:pə'stiʃən] *n.* 迷信 （形容词形式：superstitious）
proclamation	[ˌprɔklə'meiʃən] *n.* 宣告、宣布 （动词形式：proclaim。注意动词和名词之间的词形转化，类似 exclaim 与它的名词形式 exclamation。）
fabric	['fæbrik] *n.* 织品、织物
dilute	[dai'lju:t] *vt.* 冲淡、稀释 （名词形式：dilution。美国前总统尼克松 Richard M. Nixon 在著名的《在竞技场上》*In the Arena* 一书中曾评论"一次会晤或谈话的质量与参与谈话人的数量之间的关系"——"Every person you add to a meeting dilutes the quality of the conversation." 显然，他的意思是参加谈话的人越多，谈话质量越低。）
senator	['senətə] *n.* （古罗马）元老院议员、参议员 （现在也用来指美国、澳大利亚参议院 [Senate] 的成员。）
soluble	['sɔljubl] *adj.* 可溶解的 （相关单词：solubility *n.* --- solubilize *vt.*）
discrete	[dis'kri:t] *adj.* 不连续的、分立的、离散的
solvent	['sɔlvənt] *n.* 溶媒、溶剂



minimize	['minimaiz] *vt.* 将…减到最少 （前文提到过它的形容词兼名词形式 minimum。）
synthetic	[sin'θetik] *adj.* 人造的、合成的
predate	[pri:'deit] *vt.* 时间上先于… （显然是由 pre-date 两部分构成的，字面意思"在日期上先于…"，引申而来上义。）
textile	['tekstail] *adj.* 纺织的 （textile industry 表示"纺织业"。）
precipitation	[pri,sipi'teiʃən] *n.* 沉淀 （动词形式：precipitate）
substrate	['sʌbstreit] *n.* （等于 substratum）底层 （substratum 的复数形式比较特殊，写作 substrata，类似与 datum 与 data 之间的变化。）
opacity	[əu'pæsiti] *n.* 不反光、不透光 （形容词形式：opaque）

重点词汇回顾 + 同义词扩充

antiquity --- ancient past, the distant past, time immemorial, bygone days
durability --- permanence, endurance, indestructibility
superstition --- false notion, irrational belief, fantasy
proclamation --- pubic statement, declaration, announcement, assertion
discrete --- separate, disconnected, detached
minimize --- abate, reduce, lessen, minimalize
predate --- precede, antedate, preexist, antecede
opacity --- opaqueness, impenetrability, imperviousness

Reading Passage 3

IELTS 大虾必备

ceiling	[ˈsiːliŋ] *n.* 天花板、顶篷
facilitate	[fəˈsiliteit] *vt.* 使容易、使便利 （名词形式：facilitation，对应的形容词是 facile，表示“容易的、容易做到的”，引申后得到这里的动词含义。）
radial	[ˈreidjəl] *adj.* 径向的、(沿) 半径的 （名词形式：radius，表示“半径”。）
spoke	[spəuk] *n.* 轮辐、辐条
strand	[strænd] *n.* 绳、线的一股
elasticity	[ˌelæsˈtisəti] *n.* 弹力、弹性 （形容词形式：elastic）
deploy	[diˈplɔi] *vt.* 部署、运用 （名词形式：deployment）
swing	[swiŋ] *vt.* 摆动、摇摆
anchor	[ˈæŋkə] *vt.* 抛锚、使稳固 （作名词表示“锚”，这里活用作动词，引申得到上义。除此之外，anchor 作名词还可以表示“新闻节目主持人”。）
invoke	[inˈvəuk] *vt.* 援引…以支持或证明 （相关单词：invocation *n.* --- invocative *adj.*）
agent	[ˈeidʒənt] *n.* 媒介物、介质
hypothesis	[haiˈpɔθisiːz] *n.* 假设、假想 （形容词形式：hypothetical）
hub	[hʌb] *n.* 中心、轴心
posit	[ˈpɔzit] *vt.* 假设、假定
disengage	[ˌdisinˈgeidʒ] *vt.* 使脱离、使松开 （当被分为 dis- 和 engage 两部分之后，它现在的含义就一目了然了。）
anatomical	[ˌænəˈtɔmikəl] *adj.* 解剖（学）的 （名词形式：anatomy）
claw	[klɔː] *n.* 爪
collaborate	[kəˈlæbəreit] *vi.* 合作、协作 （分成三部分 col-labor-ate 之后，就得出“共同＋劳动＋动词词尾”，几个人一起劳作，合力做好一件事情，即通常所说的“合作”。）
rebound	[riˈbaund] *vi.* 回弹
vigourously	[ˈvigərəsli] *ad.* 强健地、精力充沛地 （相关单词：vigour *n.* --- vigourous *adj.*）
bulletproof	[ˈbulitpruːf] *adj.* 防弹的、子弹射不透的 （-proof 这个表达形式作后缀的时候表示“防…的、不透…的”，所以 bulletproof 表达上述含义；那么什么是 waterproof 呢？显然是“防水的、不透水的”。）
myriad	[ˈmiriəd] *adj.* 许多的、无数的



harvest	['ha:vist] *vt.* 收获、获得 （原意是“收获农作物”，这里的含义由原意发展而来。）
territorial	[ˌteri'tɔ:riəl] *adj.* 地盘性的、领土的 （名词形式：territory。前边提到 terra 表示“土地”，这里的两个单词——名词和形容词形式都由它而来。）
clone	[kləun] *n.* 克隆、无性繁殖

重点词汇回顾 + 同义词扩充

facilitate --- make easy, smooth, simplify, expedite
deploy --- arrange, organize, set out, implement
swing --- sway, move back and forth, suspend
anchor --- fasten, attach, affix, moor
hypothesis --- supposition, proposition, assumption, postulation
hub --- center, core, nucleus, pivot
posit --- postulate, speculate, hypothesize
disengage --- unfasten, unlock, untie, extricate
collaborate --- cooperate, pool resources, work together
rebound --- spring back, recoil, make a comeback, bounce back
vigourously --- energetically, dynamically, robustly, spiritedly
myriad --- countless, innumerable, uncountable, numerous
harvest --- reap, ingather, gather, obtain

雅思阅读

题型单项训练

Reading Exercises

LIST OF HEADINGS

Exercise 1

Questions 1 –7

Please choose the most suitable headings for paragraphs listed below.

NB *There are more headings than paragraphs, so you will not use them all.*

List of Headings

i	Honesty: the highest principle
ii	Professional paper preparation
iii	Appropriate attire
iv	Rehearsal
v	Test of personality
vi	Do not badmouth your last boss
vii	Test specifics during a job interview
viii	Rejoicing in hope; Patient in tribulation
ix	Psychometric testing: an essential part in some interviews
x	Be a joy angel

1 Paragraph **B**

2 Paragraph **D**

3 Paragraph **E**

4 Paragraph **H**

5 Paragraph I

6 Paragraph K

7 Paragraph M

PRE-AND POST-INTERVIEW SELF-MARKETING

A. Whether one is in a job looking to advance on the career ladder or unemployed looking for work, the only way to succeed is to market himself or herself. Any good marketer will confidently remark that the key to success is to have good campaign and to never give up. And to make it in the job market today one has to be aware of that and to do just that. Please consider the following points to get on the right track:

B. Curriculum Vitae or Resume' Business Cards, and References or Letters of Recommendation from previous employers must all be in impeccable condition before one takes any concrete action to engage oneself into another working environment. Employers' first point of contact with the applicant will be what they see on paper, so it must look proficient to create a good impression.

C. Happiness is the ultimate principle whoever one is, a prince or a pauper. And undeniably smile and friendly approach will make one look upbeat and interesting, which will greatly enhance one's chances of winning the interviewer's favour and consequently market oneself successfully.

D. Consider a variety of questions that one may be asked at interview then consider answers to the questions. Get a friend to pretend as the interviewer and then rehearse how to tackle them. This will let one brush up on interviewing skills, and make one appear more confident on the day.

E. Even if the job applied for does not require professional attire, one should still wear a business suit, unless told otherwise. If in doubt, the safest option is to dress conservatively. Having the right look will not only help one present the right image, it will increase one's self-confidence, enabling one to concentrate all their energies into what they have to say, rather than worrying about how people respond to their looks. But what not to wear: One's role in the interview process is to convince the employer that he or she is the right person for the job. Thus, any clothes, which will distract the employer's attention from delivering that message, should be avoided. To this end avoid excessive jewellery and loud colours or bright patterns of clothing. This type of attire has the potential to engender a negative reaction from the employer.

F. Always appear interested in the profession one is trying to get into. Show



knowledge of the market and investigate the latest developments within the sector. Be positive. Keep all negative thoughts away from the interview and do not say anything derogatory about one's previous employer.

G. If one wants to land a specific role within a company, find out exactly what experience, qualifications, and requirements are needed to secure the position. Then target sufficient energies into obtaining these things.

H. Sometimes, the company one is applying for includes some form of psychometric testing as a routine part of their selection procedure. Do not worry and make oneself excessively nervous. The most widely used tests fall into two main categories: personality and ability/aptitude.

I. An individual's personality plays an important part in how they perform in their job. Potential employers can gain an insight into a person's overall character, especially when these tests are used alongside other tests and methods of assessment. Candidates are usually presented with a series of multiple-choice questions to which there are no right or wrong answers — the employer obtains the information required by analysing the candidates' answers.

J. Future performance is accurately indicated by aptitude and ability, hence tests which measure both ability and aptitude have become an important way for employers to make and confirm their recruitment selections. These tests can take many forms and can be administered in both printed and electronic formats.

K. Commonly, candidates are presented with a number of different tests (with a break between each of them), namely, Numerical tests, which will test a candidate's skills with numerical information which may be presented in tabular, textual or graphical format; Abstract tests, which may involve studying groups of patterns to find similarities and differences, and Verbal tests, which may test a candidate's comprehension of reports which may not be dependable in their objectivity or honesty, for instance.

L. Make sure that one prepares himself or herself for taking the tests — have plenty of sleep; arrive in good time; remember to bring things like glasses/hearing-aids if one normally wears them and reads any literature one was given by testers. Ensure that one performs to the best of his or her ability in the tests — listen carefully and follow instructions but do not be afraid to ask questions if things are still unclear and try to work quickly and accurately as most tests are timed.

M. Consider one's best attributes and bring these to the fore in one's marketing campaign. Never lie to employer about qualifications of which one is not in possession, because one will definitely get found out, and this will only ruin one's chances of further employment. Be honest with the employer and make them aware of the achievements and accomplishments previously made in one's career.

IELTS 大虾必备

confidently	[ˈkɔnfidəntli] *adv.* 自信地，肯定地 （相应词形变化：confident *adj.* --- confidence *n.* --- confide *v.*）
remark	[riˈmaːk] *vt.* 说、评论
campaign	[kæmˈpein] *n.* 运动；活动；（包括一系列战斗的）战役
curriculum vitae/ resumé	[ˈrezjuːmei] *n.*（求职者写的）简历、履历 （Curriculum Vitae 简称 CV）
reference	[ˈrefərəns] *n.* 推荐信、介绍信 （与文中提到的 Letter of Recommendation 表达同一含义，英联邦国家喜欢用 Reference，北美则倾向用 Letter of Recommendation。）
previous	[ˈpriːvjəs] *adj.* 以前的、先前的
concrete	[ˈkɔnkriːt] *adj.* 具体的、实际的
proficient	[prəˈfiʃənt] *adj.* 精通的、熟练的
ultimate	[ˈʌltimit] *adj.* 最终的、终极的
pauper	[ˈpɔːpə] *n.* 穷人、贫民 （Mark Twain 曾著 *Prince and Pauper*《王子与贫民》）
undeniably	[ˌʌndiˈnaiəbli] *adv.* 不可否认地、无可争辩地 （相应词形变化：undeniable *adj.* --- deniable *adj.* --- deny *v.*）
upbeat	[ˈʌpbiːt] *adj.* 乐观的、活泼的、生机勃勃的
enhance	[inˈhaːns] *vt.* 提高、增大、增强
rehearse	[riˈhəːs] *vt.* 排练、排演、练习 （名词形式：rehearsal）
attire	[əˈtaiə] *n.* 服装、衣着
option	[ˈɔpʃən] *n.* 选择 （相应词形变化 opt *v.* --- option *n.* --- optional *adj.*） （optimistic *adj.* 乐观的 [opt 表示"选择"，名词 optimisn"乐观主义"。一个人什么时候会很乐观，走到绝路的时候吗？不！当各种各样的"选择"都冲他打开大门的时候才觉得自己有价值，进而很乐观。]）
conservatively	[kənˈsəːvətivli] *adv.* 保守地、传统地 （形容词形式：conservative，英国两大执政党之一保守党即为 Conservative Party；很多人用 conservative 和 reticent 两个词语来形容英国人的个性，后者表示其很矜持，轻易不开口讲话，不像很多北美人给人留下的印象 IBM — International Big Mouth，从早到晚都在 blah。）
distract one's attention from	将注意力从…转移/分散
to this end	为此、为达到这一目的 （"为达到那一目的"该怎么讲？ To that end 喽！）
excessive	[ikˈsesiv] *adj.* 过分的、过多的
potential	[pəuˈtenʃəl] *n.* 潜能、可能性
engender	[inˈdʒendə] *vt.* 造成、引起、招致
negative	[ˈnegətiv] *adj.* 负面的、消极的 （与下文中的 positive 互为反义词；表示"阴性－阳性、负数－正数、消极－积极"。）

sector	['sectə] *n.* 部门
positive	['pɔzətiv] *adj.* 积极的、有建设性的
specific	[spi'sifik] *adj.* 具体的、特定的 （动词形式：specify）
secure	[si'kjuə] *vt.* 获得
routine	[ru:'ti:n] *n.* 惯例、固定项目
fall into	分成
category	['kætigəri] *n.* 种类、类别
candidate	['kændidit] *n.* 候选人、投考者 （cand- 表示"白"，例如 candle 最初指"白色蜡烛"，candid 是形容词，表示"坦白的"；而这里 candidate 的来历要说到古罗马，当时凡是要参加竞选公职的人要穿宽松的白色长袍 [white toga]，代表无论此人的性格还是名誉上都毫无瑕疵、洁白如玉，所以以上这三个单词都来自这个表示"白"的字根。）
aptitude	['æptitju:d] *n.* 倾向、才能 （美国高考 SAT 全称为 Scholastic Aptitude Test，意为"学术倾向性测试"。）
insight	['insait] *n.* 洞察力、深入了解
overall	['əuvərɔ:l] *adj.* 总的、全面的
confirm	[kən'fə:m] *vt.* 证实、进一步确定 （名词形式：confirmation）
recruitment	[ri'kru:tmənt] *n.* 招收、招聘 （动词形式：recruit）
administer	[əd'ministə] *vt.* 实施、执行
format	['fɔ:mæt] *n.* 版式、样式
comprehension	[ˌkɔmpri'henʃən] *n.* 理解、理解力 （动词形式：comprehend）
objectivity	[ˌɔbdʒek'tivəti] *n.* 客观（性）
literature	['litəritʃə] *n.* 文献、图书资料
attribute	['ætribju:t] *n.* 特性、属性
to the fore	在前面、在显著的地位
ruin	['ruin] *vt.* 毁坏、毁灭

重点词汇回顾 + 同义词扩充

previous --- earlier, prior, former
concrete --- actual, specific
ultimate --- eventual, crucial, essential
enhance --- improve, boost, heighten
potential --- capacity, possibility, capability
engender --- produce, cause, bring about, generate
negative --- unconstructive, undesirable, damaging, destructive, adverse

sector --- area, division
specific --- particular, definite, identifiable
secure --- obtain, acquire, capture, procure
category --- class, sort, type, classification
confirm --- verify, substantiate, back up
recruitment --- staffing, employment, enlistment
comprehension --- understanding, conception, grasp
attribute --- quality, characteristic, trait



Exercise 2

Questions 1 – 7

Please choose the most suitable headings for paragraphs listed below.

NB There are more headings than paragraphs, so you will not use them all.

List of Headings

i	Types of interpretation
ii	Qualities of a capable translator
iii	Defining a court interpreter
iv	Difference between interpretation and translation
v	Interpretation, more difficult than translation
vi	Qualities of a court interpreter
vii	Some tips for beginners of interpretation
viii	Overall remuneration system of court interpreters
ix	Who needs court interpretation?
x	How much does a consecutive interpreter get paid?

1 Paragraph A

2 Paragraph B

3 Paragraph C

4 Paragraph D

5 Paragraph F

6 Paragraph G

7 Paragraph I

Interpretation and Interpreter

A. Although the terms interpretation and translation are often used interchangeably, by strict definition, interpretation refers to the spoken language, and translation to the written language.

B. A competent translator should be very acquainted with the following points: A detailed knowledge of the subject matter is equally as important as academic knowledge of the language pairs, in certain cases (technical manuals for example) it plays a greater role. An ability to write well is also important. Proofreading and editing is a good way to break into the industry and the skills gained will help you later on. Although a degree may not be absolutely necessary, a qualification in translation is important. Practice the language! Take a language course or work towards a degree or whatever you feel is appropriate. Read newspapers in that language and keep abreast of the culture, listen to music and news from that country if able to. Travel to the country as often as you are able to. No course of study will ever be 100% perfect. Only you can judge whether it is the right one to meet your needs. Those basic qualifications will help one get started but after that it is one's experience on the job and performance as a translator that counts. There are more opportunities for freelance translators than In-House. Attend local translation events and seminars. It will not only help one learn more about different subjects, it will also help one make contacts in the translation and interpreting field.

C. Interpretation is generally categorized into consecutive interpretation and simultaneous interpretation. The former refers to the circumstance where the interpreter waits until a complete statement has been spoken and then begins interpreting (so only one person is speaking at a time). It is used primarily to interpret witness testimony, a situation in which everyone in the courtroom needs to hear the interpretation. Simultaneous interpretation is generally considered inappropriate for witness testimony — unless the courtroom is equipped with wireless equipment for that purpose — because hearing two voices at once is too distracting.

D. A court interpreter is anyone who interprets in a civil or criminal court proceeding (e.g., arraignment, motion, pretrial conference, preliminary hearing, deposition, trial) for a witness or defendant who speaks or understands little or no English.

E. Court interpreters must accurately interpret for individuals with a high level of education and an expansive vocabulary, as well as persons with very limited language skills without changing the language register of the speaker. For the other languages, the following self-study techniques are suggested: (1) expand your vocabulary, (2) de-

velop your own glossaries, and (3) develop interpreting techniques, namely, consecutive interpretation, simultaneous interpretation, and sight translation.

F. In addition to total fluency in both English and the foreign language, a court interpreter should have excellent public speaking and interpersonal skills. Sometimes the testimony to be interpreted is shocking or traumatic, and the interpreter must be able to deal with such matters without becoming emotionally involved. The interpreter must also be able to refrain from expressing personal opinions or acting as an advocate for one side or the other in a court case, and must be able to work unobtrusively. The interpreter must be able to work well under pressure and react quickly to solve complex linguistic and ethical problems as they arise. On the other hand, when a problem cannot be solved by the interpreter alone, the interpreter must demonstrate the good judgment required to inform the court of that fact and take whatever steps are necessary to resolve the situation. And finally, good court interpreters constantly strive to improve their skills by reading from a wide variety of sources, attending conferences, researching new terms and concepts, and honing their interpreting techniques.

G. There is a great demand for certified court interpreters in areas with large immigrant populations. Most court interpreters work as freelance or per-diem interpreters, meaning that they are hired by the day or the half day, rather than being permanent employees of the trial courts. Some trial courts, however, have permanent positions for court interpreters. A freelance interpreter must be willing to travel from one trial court to another, perhaps even from one county trial court system to another, to be assured of full-time work. Court interpreters are generally paid by the whole or half day. Currently, court interpreters are paid $265 a day and $147 for half day. Trial court systems that have permanent positions for court interpreters pay between $30,000 and $66,000 per year, depending on location and experience.

H. Interpreters of languages for which there is no state certifying examination are called "registered interpreters of non-designated languages". Non-designated languages are languages for which there are no state certifying examinations. Registered interpreters must meet the requirements developed for court interpreters as well as pass an English proficiency exam that tests their knowledge of English, court procedure, and professional ethics.

I. Professional associations offer workshops and conferences at which novices are welcome. Introductory courses in court interpreting at colleges and universities are also good sources of information. Attending court sessions at one's local courthouse will give one a good idea of the kinds of proceedings in which one will be expected to interpret, and one may be able to observe a certified court interpreter at work.

IELTS 大虾必备

competent	['kɔmpitənt] *adj.* 合格的、有能力的、能胜任的 (名词形式：competence 或 competency)
be acquainted with	了解、与…相识 (相应词形变化 acquaint *vt.* --- acquaintance *n.* acquaintance 相识、熟人；歌曲《友谊地久天长》Auld Lang Syne 里唱到“Should auld/old be forgot and never brought to mind”意为“旧日朋友岂能遗忘，心中从不怀想？”)
seminar	['semina:] *n.* 专题讨论会、专家讨论会
be categorized into	被（划）分为 (前文中出现了它的名词形式：category)
consecutive interpretation	交替式翻译、交传
simultaneous interpretation	同声传译、同传
primarily	['praimərili] *adv.* 主要地 (相关单词：primary, prime)
testimony	['testiməni] *n.* （尤指在法庭上所作的）证词 (在提供证词之前，法庭要求证人发誓，对于信仰上帝的证人，誓词如下：“Take the Bible in your right hand. Do you swear the evidence you are about to give this court touching the matter in question will be the truth, the whole truth, and nothing but the truth? So help you God.” 证人回答“I do.”如果无神论者在法庭作证，他们会被问及“Do you solemnly affirm that the evidence to be given by you shall be the truth, the whole truth, and nothing but the truth?” 这时证人回答“Yes.”或“I do.”。)
proceeding	[prə'si:diŋ] *n.* 诉讼、诉讼程序
motion	['məuʃən] *n.* （向法院提出的）请求、申请
register	['redʒistə] *n.* 【语言学】语域、使用域 (register 作动词表示“登记、注册”更加常用。)
glossary	['glɔsəri] *n.* 专业词汇
fluency	['fluənsi] *n.* 流利、流畅 (形容词形式：fluent)
traumatic	[trɔ:'mætik] *adj.* 令人痛苦而难忘的 (名词形式：trauma，psychic trauma 指“精神创伤、心灵创伤”)
refrain from	忍住、自制以避免
linguistic	[liŋ'gwistik] *adj.* 语言上的 (相应词形变化：linguistics *n.* 语言学 --- linguist *n.* 语言学家)
ethical	['eθikəl] *adj.* 道德的、伦理的
resolve	[ri'zɔlv] *vt.* 解决
strive	[straiv] *vt.* 努力、力争 (如果你是笃信完美主义的人 [perfectionist]，请记得这样一句话：Strive for Excellence, Not for Perfection! 不要让自己太辛苦。)
hone	[həun] *vt.* 磨练、训练

certified	['sə:tifaid] *adj.* 证明合格的 (注册会计师 CPA 全称为 Certified Public Accountant)
immigrant	['imigrənt] *n.* 移民、侨民 (相关词形变化：immigration *n.* emigration *n.* --- emigrant *n.* migration *n.* --- migrant *n.*)
novice	['nɔvis] *n.* 新手、初学者 (从词语来源看，novice 和 novel 可以在一起记忆，两个单词共有的 nov 部分表示"新"。novel 除了表示生活中人们阅读的"小说"之外，还可以用作形容词，表"新奇的、新颖的"。)

重点词汇回顾 + 同义词扩充

competent --- capable, able, adept, skilled
acquaint --- familiarize, notify, inform
primarily --- chiefly, mainly, principally, predominantly
fluency --- eloquence, facility, glibness
traumatic --- shocking, distressing, upsetting, painful
resolve --- solve, settle, come to a decision
strive --- endeavor, do one's utmost, make every effort, go all out
hone --- refine, polish, perfect, enhance
novice --- beginner, apprentice, greenhorn

Exercise 3

Question 1

1 The best title for the article is ________.

A Unification of Maritime Law

B Unilateral Maritime Law

C Obstacles to Unification of Maritime Law

D Barriers to Unilateral Maritime Law

E Unity of Maritime Law

Questions 2 – 8

Please choose the most suitable headings for paragraphs listed below.

NB *There are more headings than paragraphs, so you will not use them all.*

List of Headings

i	First convention of Comité Maritime International
ii	Ineffective drafting
iii	The convention having been revised three times
iv	Why is unification of maritime law necessary?
v	The convention with the most signature states
vi	What does CMI do?
vii	Incompatible time scale
viii	The salvage convention
ix	Uniformity of maritime law
x	Carriage of Goods Convention

2 Paragraph I

3 Paragraph II

4 Paragraph III

5 Paragraph V

6 Paragraph VI

7 Paragraph VII

8 Paragraph VIII

I. According to Constitution:"The Comité Maritime International (CMI) is a non-governmental international organization, the object of which is to contribute by all appropriate means and activities to the unification of maritime law in all its aspects. To this end it shall promote the establishment of national associations of maritime law and shall co-operate with other international organizations." The CMI has been doing just that since 1897.

II. In an address to the University of Turin in 1860, the Jurist Mancini said: "The sea with its winds, its storms and its dangers never changes and this demands a necessary uniformity of juridical regime." In other words, those involved in the world of maritime trade need to know that wherever they trade the applicable law will, by and large, be the same. Traditionally, uniformity is achieved by means of international conventions or other forms of agreement negotiated between governments and enforced domestically by those same governments.

III. It is tempting to measure the success of a convention on a strictly numerical basis. If that is the proper criterion of success, one could say that one of the most successful conventions ever produced was the very first CMI convention — the Collision Convention of 1910. The terms of this convention were agreed on September 23, 1910 and the convention entered into force less than three years later, on March 1, 1913.

IV. Almost as successful, in numerical terms, is a convention of similar vintage, namely the Salvage Convention of 1910. Less than three years elapsed between agreement of the text at the Brussels Diplomatic Conference and entry into force on March 1, 1913. We are, quite properly, starting to see a number of denunciations of this convention, as countries adopt the new Salvage Convention of 1989. It is worth recording that the Salvage Convention of 1989, designed to replace the 1910 Convention, did not enter into force until July 1996, more than seven years after agreement. The latest information available is that forty States have now ratified or acceded to the 1989 convention.

V. The text of the first Limitation Convention was agreed at the Brussels Diplomatic Conference in August 1924, but did not enter into force until 1931 — seven years after the text had been agreed. This convention was not widely supported, and eventually attracted only fifteen ratifications or accessions. The CMI had a second go at limitation with its 1957 Convention, the text of which was agreed in October of that year. It entered into force in May 1968 and has been ratified or acceded to by fifty-one states, though of course a number have subsequently denounced this convention in order to embrace the third CMI Limitation Convention, that of 1976. At the latest count the '76 Convention has been ratified or acceded to by thirty-seven states. The fourth instrument on limitation, namely the 1996 Protocol,has not yet come into force, despite the passage of six years since the Diplomatic Conference at which the text of the was agreed.

VI. By almost any standard of measurement, the most successful maritime law convention of all time: the Civil Liability Convention of 1969. The text of that convention (to which the CMI contributed both in background research and drafting) was agreed at a Diplomatic Conference in 1969 and it entered into force six years later, in June 1975. The convention has, at various stages, been acceded to or ratified by 103 states (with two additional "provisional" ratifications). If we add to this the various states and dependencies that come in under the UK umbrella, we realize that we are looking at a hugely successful convention.

VII. Conventions and other unifying instruments are born in adversity. An area of law may come under review because one or two states have been confronted by a maritime legal problem that has affected them directly. Those sponsoring states may well spend some time reviewing the problem and producing the first draft of an instrument. Eventually, this draft may be offered to the International Maritime Organisation's (IMO) Legal Committee for inclusion in its work program. Over ensuing years (the Legal Committee meeting every six months or so), issues presented by the draft will be debated, new issues will be raised, and the instrument will be endlessly re-drafted. At some stage, the view will be taken that the instrument is sufficiently mature to warrant a Diplomatic Conference at which the text will be finalized. If the instrument is approved at the Diplomatic Conference, it will sit for twelve months awaiting signature, and then be open to ratification and accession. The instrument will contain an entry into force requirement, which will need to be satisfied. This requirement may involve accession by fifteen or more states. Once the instrument has entered into force, it will not be a truly harmonizing instrument until ratified or acceded to and implemented by a respectable number of states. Implementation may well require parliamentary time and attention for primary legislation. This delay has two major consequences. Firstly, states with a real problem may get fed up with waiting and decide instead on national legislation to deal with the problem. Secondly, if the instrument contains limits of financial liability, these limits may be outdated before the instrument ever comes into force. No state will implement a convention that requires it to apply limitation figures that do not meet current domestic needs.

VIII. Drafting a wreck removal convention is currently part of the work program of the IMO Legal Committee. The project was initially sponsored by the governments of the UK, the Netherlands, and Germany. When the matter was first presented at the seventy third session of the IMO Legal Committee in April 1996, the submission consisted of an introductory memorandum and a draft convention. Whilst it may have drawn some inspiration from the laws of the three sponsoring states relevant to the subject of wreck removal, it was not preceded by a careful review of the wreck removal laws of a large number of states.



IELTS 大虾必备

constitution [ˌkɔnstiˈtjuːʃən] *n.* （Constitution） 宪法

unification [ˌjuːnifiˈkeiʃən] *n.* 合一、一致
（动词形式：unify）

maritime [ˈmæritaim] *adj.* 海事的、海运的
（近年来，Maritime Law “海事法”这一专业受到越来越多欲留学海外的中国学生的青睐。）

address [əˈdres] *n.* 演讲、致辞、献辞
（美国前总统亚伯拉翰•林肯发表的《葛底斯堡公墓献辞》*Gettysburg Address* 深受英语学习者喜欢，常常被选作背诵文章。）

uniformity [ˌjuːniˈfɔːmiti] *n.* 统一、一致
（uniformity 与上文中 unification 的含义共同来源于 uni-，表示“单一”。IELTS 考生还应了解如下相关单词：
unique *adj.* --- unit *n.* --- unity *n.* --- uniform *n./adj.*）

juridical [dʒuəˈridikəl] *adj.* 司法的
（西方国家的所谓三权分立指立法、司法、执法三权分立，这三方面所对应的英文分别是 legislative, judicial and executive。）

regime [reiˈʒiːm] *n.* 管理制度、体制、体系、政权

convention [kənˈvenʃən] *n.* 国际公约、协议

enforce [inˈfɔːs] *vt.* （强迫）执行
（名词形式：enforcement）

criterion [kraiˈtiəriən] *n.* （批评判断的）标准
（复数形式：criteria）

term [təːm] *n.* 条款、条件

vintage [ˈvintidʒ] *n.* （某一年代）流行的事物

salvage [ˈsælvidʒ] *n.* 海上救助、打捞

elapse [iˈlæps] *vi.* （时间）流逝
（“随着时间的流逝” --- As time goes by 或 As time elapses。）

denunciation [diˌnʌnsiˈeiʃən] *n.* 谴责
（下文出现了它的动词形式：denounce。）

available [əˈveiləbl] *adj.* 可获得的、可利用的
（动词形式：avail --- avail （oneself） of 利用）

ratify [ˈrætifai] *vt.* 批准、认可
（下文出现了它的名词形式：ratification。）

accede [ækˈsiːd] *vi.* 同意加入、同意
（名词形式：accession）

denounce [diˈnauns] *vt.* 公开指责、公然抨击、谴责

embrace [imˈbreis] *vt.* 欣然接受、采取
（brace 来自古法语，表示“手臂”，那么 embrace 的基本含义表示“放在手臂里”，指“拥抱”这个动作；什么又是 bracelet 呢，我们再介绍一个单词 piglet 和它一起记忆，let 放在一些名词的后边表示“小、在…上佩带的小饰物”，所以 bracelet 表示“手镯”，piglet 是“小猪”。进一步想想，anklet 不就是“脚链、脚镯”吗！）

protocol [ˈprəutəkɔl] *n.* 草案、协议

provisional	[prə'viʒənl] *adj.* 临时的
adversity	[əd'və:siti] *n.* 逆境、灾祸 （形容词形式：adverse）
sponsor	['spɔnsə] *vt.* 发起、赞助
draft	[dra:ft] *n.* 草稿、草案
mature	[mə'tjuə] *adj.* 成熟的 （相关单词 maturity *n.* 成熟 --- immature *adj.* 不成熟的）
warrant	['wɔrənt] *vt.* 保证、担保
harmonize	['ha:mənaiz] *vt.* 使一致、使协调、使融洽
implement	['implimənt] *vt.* 贯彻、执行 （名词形式：implementation）
respectable	[ris'pektəbl] *adj.* 相当数量的、可观的
consequence	['kɔnsikwəns] *n.* 后果、结果
wreck	[rek] *n.* 失事船只、残骸
initially	[i'niʃəli] *adv.* 最初 （相应词形变化：initial *adj.* --- initials *n.* 姓名的首字母［例如，西方人熟知的 J.F.K. 代表 John Fitzgerald Kennedy，美国前总统肯尼迪。］）
submission	[səb'miʃən] *n.* 提交/呈递书 （动词形式：submit）
precede	[pri(:)'si:d] *vt.* 处在…之前、先于

重点词汇回顾 ＋ 同义词扩充

unification --- fusion, integration
uniformity --- standardization, sameness
enforce --- implement, administer, carry out
criterion --- standard, norm, benchmark, yardstick
elapse --- lapse, pass (by), go by, slip away
denunciation --- condemnation, censure, criticism, scolding
available --- obtainable, accessible, on hand
ratify --- approve, endorse, consent,
embrace --- accept, welcome, adopt, support
provisional --- temporary, interim, short-term, makeshift
adversity --- hardship, hard times, misfortune, difficulty
sponsor --- support, back, subsidize
mature --- developed, established, advanced
warrant --- guarantee, pledge
harmonize --- bring into line, standardize, make uniform
consequence --- result, outcome, upshot, aftermath
initially --- at first, at the outset, originally
precede --- lead, go before, pave the way, herald

Exercise 4

Questions 1 – 6

Please choose the most suitable headings for paragraphs listed below.

NB *There are more headings than paragraphs, so you will not use them all.*

List of Headings

i	The impact of politics and national economy on media content
ii	(the)First multi-national media projection (survey) of women
iii	Increased media coverage of women ≠ The attainment of presenting women as active subjects
iv	Increased media coverage of women = Successful presenting women as active subjects
v	The improvement of media representation of women in 1990s
vi	Extensive social and political change --- ultimate resort
vii	Ten issues covered by Global Media Monitoring Project
viii	Ten years of ineffective conversion of the media content regarding women
ix	Female powerlessness vs. Male privilege in daily social life

1 Paragraph B

2 Paragraph C

3 Paragraph E

4 Paragraph F

5 Paragraph G

6 Paragraph H

Media Representation of Women

A. Since the 1960s the women's movement has been engaged in a systematic and constant critique of media institutions and their output. In a world in which the media increasingly provide the 'common ground' of information, symbols and ideas for most social groups, women's representation in the media helps to keep them in a place of relative powerlessness. This mediated invisibility is achieved not simply through the non-representation of women's points of view or perspectives on the world. When women are 'visible' in media content, the manner of their representation reflects the biases and assumptions of those who define the public — and therefore the media agenda. More than twenty-five years after the international community began formally to recognize the scale of gender inequality in every aspect of life, and despite the adoption of many measures to redress gender imbalances, the power to define public and media agendas is still mainly a male privilege.

B. At a global level the United Nations International Decade for Women (1975—85) was an early catalyst for both activism and research. Since the late 1970s this work has revolved round two central axes: a critique of the ways in which media content projects women as objects rather than as active subjects, and an analysis of the institutional and social structures of power through which women are systematically marginalized within media organizations. The link between media content and the individuals who produce it is of course greatly attenuated by countless factors including institutional policies, professional values and advertisers' demands. So although in most countries more women are entering the media professions than ever before, it would be unreasonable to imagine that this will result in a radical transformation of media content.

C. It is difficult to assess accurately the extent to which these factors are universal, and the extent to which they might be changing. Studies spanning more than one country are rare. In 1995 the first extensive cross-national quantitative study of women's portrayal in the media ever carried out — spanning newspapers, radio and television, and covering seventy-one countries — found that only 17 percent of the world's news subjects (i.e. news-makers or interviewees in news stories) were women. The proportion of female news subjects was lowest in Asia (14 percent) and highest in North America (27 percent). Women were least likely to be news subjects in the fields of politics and government (7 percent of all news subjects in this field) and economy/business (9 percent). They were most likely to make the news in terms of health and social issues (33 percent) and were relatively well represented in arts and entertainment news (31 percent).

D. Global Media Monitoring Project, as it became known, also looked at the extent to which the news stories covered ten broad issues which have been traditionally of



'particular concern to women' (for example, violence against women, women's work or health). Overall, just 11 percent of stories dealt with such issues, and only 6 percent in Latin America.

E. Another review of research since 1990 — covering all media — in nineteen European countries concluded that the overall picture of gender portrayal is no longer monolithic stereotyping of the kind described in content studies of the 1970s and 1980s (European Commission 1999). In Latin America, too, some positive changes can be detected.

F. Media representations in general, and of women in particular, are deeply embedded in political and economic contexts. For instance, in Asia the media in many countries have recently seen a spectacular transformation with the arrival of new commercial cable and satellite channels, and the privatization of old state-run media has led to new market-oriented content. Current studies from this region highlight the tensions and conflicts that such changes introduce into representations of women. The findings are in line with much of the European data, indicating a greater diversity in women's roles and a move away from the subordinate housewife-mother image. Studies from India and Singapore point to the often contradictory ways in which the media and advertising are accommodating to women's multiple identities in contemporary society. Images of the 'new woman' as an independent consumer whose femininity remains intact, or as a hard-headed individualist whose feminine side must be sacrificed, illustrate new stereotypes of women whose 'femaleness' is always the core issue.

G. Studies by the Media Monitoring Project in South Africa have shown that while coverage of women's issues increases dramatically in the run-up to National Women's Day (9 August), most of it failed to represent women as active participants in society.

H. These findings, and those of countless other studies, illustrate clearly that despite the small shifts noted in retrospective analyses, by and large media content still reflects a masculine vision of the world and of what is important. What it actually requires is a wide-scale social and political transformation, in which women's rights — and women's right to communicate — are truly understood, respected and implemented both in society at large and by the media.

I. This is the starting point for media monitoring and advocacy. Whether or not a critical mass of women working in the media can make an imprint on media content is a secondary question to the need for wider and deeper social change.

IELTS 大虾必备

critique	[kri'ti:k] *n.* 评论、批评
mediate	['mi:diit] *vt.* 居中、处于中间位置 （相应词形变化：mediation *n.* --- mediator *n.* 调停人、仲裁人） （medi- 表示"中间"，例如 medieval *adj.* 中世纪的 [medi-ev-al 表示"中＋时代＋的"]）
perspective	[pə:'spektiv] *n.* 观点、视角
bias	['baiəs] *n.* 偏见、偏袒、偏爱
assumption	[ə'sʌmpʃən] *n.* 假定、设想 （动词形式：assume）
agenda	[ə'dʒendə] *n.* 日常工作事项、议事日程
gender	['dʒendə] *n.* （生理上的）性
inequality	[ˌini(:)'kwɔliti] *n.* 不平等、不均等 （相关单词：unequal *adj.* 不平等的 --- equality *n.* 平等 --- equal *adj.* 平等的）
redress	[ri'dres] *vt.* 纠正、矫正
privilege	['privilidʒ] *n.* 特权、特别待遇
revolve	[ri'vɔlv] *vi.* 环绕、围绕
marginalize	['ma:dʒinəlaiz] *vt.* 使处于社会边缘、排斥 （相应词形变化：marginal *adj.* --- margin *n.*）
radical	['rædikəl] *adj.* 根本的、激进的
transformation	[ˌtrænsfə'meiʃən] *n.* 变化、转化、转换 （动词形式：transform） （trans- 表示"转移、变化"，类似的单词 translocation "移动、移位"）
embed	[im'bed] *vt.* 把…嵌入、放入
context	['kɔntekst] *n.* 背景、环境
spectacular	[spek'tækjulə] *adj.* 引人入胜的、壮观的 （spect- 表示"看"，"看到的壮观景象、奇观"叫做 spectacle，pro-spect 表示"往前/向前＋看"，中文译作"前景"。）
cable	['keibl] *adj.* 电缆电视的、有线电视的 （总部位于美国亚特兰大的著名电视台 CNN 全称为 Cable News Network，意为"有线新闻网"。）
-oriented	['ɔ:rientid] *adj.* 以…为导向的 （orient 最初表示"东方"，后来泛指方向，例如文中的 market-oriented 表示"以市场为导向的"，plot-oriented "以情节为导向的"，也就是"以情节为主的"。）
highlight	['hailait] *vt.* 使显著、突出
in line with	符合
diversity	[dai'və:siti] *n.* 多样性 （相应词形变化：diverse *adj.* --- diversify *vt.*）
contradictory	[ˌkɔntrə'diktəri] *adj.* 反对的、矛盾的 （相应词形变化：contradiction *n.* --- contradict *vt.* [contra-dict 表示"相反/反对＋说"，意即"与…相矛盾、反驳"]）
multiple	['mʌltipl] *adj.* 多个的、多种多样的 （multi- 表示"多"，"多项选择"对应的英语为 multiple choice。）

identity	[ai'dentiti] *n.* 身份
contemporary	[kən'tempərəri] *adj.* 当代的、同时代的
femininity	[,femi'ninəti] *n.* 女子气质、阴柔 （相应词形变化：feminine *adj.* --- feminism *n.* 女权主义 --- feminist *n.* 女权主义者）
intact	[in'tækt] *adj.* 完整无缺的
hard-headed	[ha:d'hedid] *adj.* 讲究实际的、精明的
core	[kɔ:] *n.* 核心、果核、中心
run-up	['rʌn,ʌp] *n.* （事情的）序幕、前奏、前导期、预备期
retrospective	[,retrəu'spektiv] *adj.* 回顾的、回想的 （retro-spect-ive 还记得上文讲过的 spect 吗？它和前边提到过的 prospect 的形容词形式 prospective 是反义词。）
masculine	['ma:skjulin] *adj.* 男性的、男子气概的 （相应词形变化：masculinity *n.* --- 与上文的 femininity 互为反义词。"阳刚气十足的男子"英文中称 macho。）
advocacy	['ædvəkəsi] *n.* 拥护、提倡；辩护
critical mass	（达到预期效果所需的）足够数量
imprint	[im'print] *n.* 深刻的印象

重点词汇回顾 + 同义词扩充

critique --- review, criticism, evaluation
mediate --- reconcile, negotiate, intercede
bias --- prejudice, partiality, preference
inequality --- discrimination, unfairness
radical --- fundamental, profound; fanatical, revolutionary
transformation --- alteration, conversion, revolution, change
embed --- implant, insert, set in
context --- setting, circumstances, milieu, environment
spectacular --- stunning, impressive, magnificent, dazzling, breathtaking, marvelous
highlight --- emphasize, underline, underscore, draw attention to
diversity --- variety, multiplicity
contradictory --- opposing, clashing, conflicting, incongruous
intact --- complete, unbroken, integral
run-up --- introduction, lead-in, preamble, preface, prelude
imprint --- impression, stamp

Exercise 5

Questions 1 – 7

Please choose the most suitable headings for sections listed below.

***NB** There are more headings than sections, so you will not use them all.*

List of Headings

i	What can butterfly farms do to the "delicate insects" and the public as well?
ii	The present grim situation of butterfly species
iii	The reason for man's farming butterflies when they have their native forest habitat
iv	An example of man's preservation and successful employment of butterflies
v	Butterfly attraction and craze
vi	The flourishing of the butterfly business
vii	Butterflies in human history
viii	Specification of the term "butterfly farm"
ix	U.S. has most of the butterfly species on the earth
x	How did Ian Wallace get his fortune from the butterfly business?

1 Section A

2 Section B

3 Section C

4 Section D

5 Section E

6 Section F

7 Section G

Butterfly Farm



A. A butterfly farm is a piece of land dedicated to raising a spectacular and unusual cash crop: various species of those beautiful, delicate insects. Farms take various shapes, and farming is done in different ways. On a farm the insects go through their entire life cycle in captivity. These farms provide protective control over the stock and, with adequate climate control, can be located almost anywhere.

A somewhat different farming method uses wild adults, which feed and lay eggs in gardens planted on the edge of existing forest. Because of its free-range aspects, this is also known as butterfly ranching. The advantages include constant genetic variability, and most importantly, a requirement that the butterflies' native forest habitat be preserved. It is ideal from a conservation point of view because the local ranchers become protectors of the forest as the source of their livelihoods.

B. Depending on the species and the purpose for which they are being raised, butterflies can be exported live, as pupae, or dead, as top-quality collector specimens. Farming has the best chance of economic success when the species farmed is highly local, since species of limited range are likely to be rarer and thus more valuable. More common butterflies are also collected en masse for decorative uses.

C. Collecting eggs or pupae in a garden is easier than finding pupae specimens in the forest in any quantity. More insects survive. Only 1 or 2 percent of eggs laid in the wild live long enough to metamorphose into butterflies. A farmer, on the other hand, can: protect his stock from predators, discouraging them by providing human presence or by enclosing them within nets, protective sleeves, or hatching boxes, depending on the stage of development; reduce the incidence of disease by removing any diseased larvae before others are infected; and make sure the growing insects have enough food, relocating larvae from overcrowded areas if necessary. It is certain that if killed right after hatching, as soon as their wings dry, butterfly specimens are in perfect condition, and they are more valuable.

In addition, butterfly farms can also: supply valuable scientific information. It provides valuable scientific information about butterfly distribution and status, which helps biologists assess a species' conservation requirements; ensure a permanent supply. A permanent supply of butterflies is ensured if the farmer is careful to leave some pupae uncollected to produce the next generation of insects, some of which will return to breed in his butterfly garden; and educate visitors and attract tourist dollars.

D. The first butterfly house opened in 1976 on Guernsey Island in the English Channel. Since then, over 250 have sprung up, mostly in Europe. In the United States the first to open was Butterfly World in Coconut Creek, Florida, in 1988. There are now about a dozen butterfly houses

in the U.S. and Canada, with more on the way. Most adult butterflies live only two to eight weeks so butterfly houses constantly must be restocked. Ian Wallace, owner of Entomological Supplies, in England, the largest retailer of live butterflies, marketed about half-a-million pupae last year, and the demand is growing at 25 percent annual rate. In addition to importing about 1,000 pupae each week from the butterfly farm in Costa Rica, Wallace orders pupae from operations in 38 tropical countries.

E. People have always been fascinated by butterflies, so it is not surprising how much business the butterfly industry has generated. Perhaps more than any other invertebrates, butterflies have found their way into our poems, songs, and art. So great was the butterfly craze during the Victorian Age that public auctions of exotic specimens were frequently held in London. Professional collectors scoured the jungles to add colorful butterflies to the displays of the wealthy.

F. Unfortunately, in many places such opportunities are declining. The United States is home to some 700 butterfly species; 14 of them are listed as endangered or threatened by the U.S. Fish and Wildlife Service. Gone forever are the xerces blue, sthenele satyr, pheres blue, strohbeen's parnassius, and the atossa fritillary. Worldwide, the World Conservation Union cites 332 butterflies as being in trouble. But population data for most of the 20,000 known butterfly species is scant to nonexistent, and recent surveys in the Amazon River Basin suggest that another 2,000 species have yet to be discovered. We have no idea how many butterfly species are lost as we say goodbye to an acre of rainforest with every heartbeat. But consider entomologist Edward O. Wilson's most conservative estimate that one year's rate of deforestation, approximately an area the size of Florida, obliterates some 27,000 species of plants and animals.

G. Although other factors may be involved, the principal threat to butterflies, as with most wildlife, is the loss or alteration of habitat. In this regard, Joris Brinckerhoff made his contribution to both the preservation of various butterfly species and to the betterment of Costa Rica economy. In the past Costa Rica was suffering its most devastating economic crunch, resulting from dependence on agricultural exports like coffee, bananas, and sugar, none of which are indigenous to the country. Joris, then a Peace Corps volunteer in Costa Rica, thought, "Why not export the best of Costa Rica — its beautiful natural history — in a way that doesn't destroy the environment but actually enhances it?" In 1984, with his wife, Brinckerhoff converted a two-and-a-half acre horse pasture into one of Latin America's first butterfly farms specifically intended to supply butterfly houses.

Stressing the importance of preserving the butterfly habitat, the couple trained local people in conservation methods and assembled a work force of native Costa Ricans. Eventually 15 of these people started their own butterfly farms. The Brinckerhoffs also helped women in the area start a cottage industry for the making of replicas of butterflies to sell to tourists. Brinckerhoff managed the farm as much as possible for the benefit of wild butterflies, planting thousands of nectar and larval food plants, yet allowing most of the land to revert to functional rainforest.

IELTS大虾必备

species	['spiːʃiːz] *n.* 种类 (Charles Darwin 所著《物种起源》英文名称为 *The Origin of Species*)
captivity	[kæp'tiviti] *n.* 囚禁 (相关单词：captive *n.* 俘虏)
genetic	[dʒi'netik] *adj.* 基因的、遗传性的 (名词形式：gene *n.* 基因；genetic engineering "基因工程")
habitat	['hæbitæt] *n.* (动植物的)生活环境、栖息地 (相关单词：habitant *n.* 居住者 --- habitation *n.* 居住、住所 --- co-habitation *n.* 同居；目前，很多报刊杂志上引用的"新 Co-Hab 时代"指的就是"新 Co-Habitation 时代"，即"新同居时代"。)
conservation	[ˌkɔnsə(ː)'veiʃən] *n.* (对自然资源的)保护
specimen	['spesimin] *n.* 标本、样本
predator	['predətə] *n.* 掠夺者、捕食其他动物的动物 (形容词形式：predatory)
infect	[in'fekt] *vt.* 传染、感染 (相应词形变化：infection *n.* --- infectious *adj.*)
distribution	[ˌdistri'bjuːʃən] *n.* 分布(状态)
spring up	(迅速)产生
retailer	['riːteilə] *n.* 零售商 (retail *n./v.* 零售 --- wholesale *n./adj./v.* 批发)
annual	['ænjuəl] *adj.* 每年的
tropical	['trɔpikəl] *adj.* 热带的 (亚热带的 --- subtropical)
fascinate	['fæsineit] *vt.* 使着迷、使神魂颠倒
generate	['dʒenəreit] *vt.* 产生、发生、引起
auction	['ɔːkʃən] *n.* 拍卖
endangered	[in'deindʒəd] *adj.* 有灭绝危险的、将要绝种的
cite	[sait] *vt.* 引用、引证
basin	['beisn] *n.* 盆地
deforestation	[diˌfɔris'teikʃən] *n.* 采伐森林、森林开伐 (de 在这里表示"除去"，理解这个单词可以将它分成三部分 de-forest-ation，意即将森林里的树木除去，有中文中说"乱砍乱伐"之意。那么如果你遇到 debone 这个单词，该如何理解呢？字面意思就是"除去骨头上的东西"，骨头上能长什么？还不是肉！所以 debone 表示"将鸡、鸭、猪肉等去骨"。)
principal	['prinsəpəl] *adj.* 主要的、首要的 (IELTS 考生还要知道 principal 作名词可表示"校长"。)
betterment	['betəmənt] *n.* 改善、改良 (betterment 的动词形式是 better。很多英语初学者都知道 good 的比较级是 better，这里就进一步了解这个单词的又一用法——可以用作动词，表示"改善、改良"，有变得越来越好之意。同样道理，bad 的比较级是 worse，表示"恶化、变得越来越糟"可不可以用 worse 呢？答案是用 worsen，而不是 worse。)

indigenous	[in'didʒinəs] *adj.* 本土的 （词形上要将 ingenious 与之区分开来，ingenious 表示“灵巧的、善于创造发明的”。）
convert	[kən'və:t] *vt.* 使转变、转换 （名词形式：conversion）
revert	[ri'və:t] *vi.* 恢复、回复 （名词形式：reversion）
functional	['fʌŋkʃənl] *adj.* 有多种用途的、可使用的 （相应词形变化：function *n./v.*）

重点词汇回顾 ＋ 同义词扩充

captivity --- imprisonment, confinement, detention
habitat --- home, locale, environment, surroundings
infect --- contaminate, pollute, taint, poison
fascinate --- captivate, charm, enthrall, entice, allure
generate --- produce, create, engender
cite --- quote, mention, refer to, allude to
principal --- chief, prime, primary, foremost
betterment --- improvement, advancement, progress
convert --- change, alter, transform, renovate
functional --- operational, serviceable

MATCHING

Exercise 1

Barristers and Solicitors

Law firms from many different jurisdictions have long come to appreciate the expert and cost effective service offered by the Bar of England and Wales. In many jurisdictions there is one generic category of "lawyer", although some may specialise in advocacy and specialist legal advice whereas others do deals and rarely go to Court. In England, the legal profession is split between solicitors and barristers.

There are nearly 11,000 self-employed barristers in England and Wales. The role of barristers is to appear in Court and give specialist advice. By far the greatest part of higher level advocacy in English Courts and arbitral tribunals is undertaken by barristers. Leading advocates are designated "Queen's Counsel" or QC, a quality mark which allows one to identify those who are the most experienced in their particular field. There are about 1300 QC's. Cases are typically referred to barristers by solicitors, much in the way that a general practitioner in the medical field might refer someone to a consultant. However, foreign lawyers can also use the bar directly, as explained below. Recruitment to specialist barristers' chambers is highly competitive, and the largest sets take on as pupils (trainees) only three or four students out of many hundreds of applicants. They often accept as tenants only one or two of those. The hallmark of a successful pupil and a successful barrister is academic excellence and flair as an advocate.

Barristers specialise in legal argument and cross-examination, both in Court and in arbitration in England/Wales and abroad; advice on the strength and weaknesses of cases and on the evidence required to support them; and the giving of opinions on points of law even in a non-contentious context. Senior barristers are also frequently appointed as arbitrators, mediators and adjudicators, and to appear as expert witnesses abroad. In several important jurisdictions barristers can obtain temporary admission to argue cases in court. These include Australia, Malaysia, Singapore, Hong Kong, Brunei, Bermuda, the Cayman Islands and parts of the Caribbean. All barristers have rights of audience in the European Court of Justice and the European Court of Human Rights. Specialist chambers are networked to legal research tools and web-linked, so that points can be raised and answered by email, and a barrister can readily be incorporated into a team.

Barristers can be approached directly by foreign lawyers including in-house counsel. The advantages are multifarious: The nature of barristers' work means that they develop current knowledge and court-

room instinct in their fields, so that their advice is particularly reliable. The bar remains primarily a referral profession, so that there is no danger of barristers or their chambers taking away clients. On the contrary, the bar can work closely with foreign lawyers to improve efficiency and deliver an enhanced service. Often the overseas firm can do much of the preparation for litigation and collect the evidence identified as necessary by the barrister. If a solicitor's firm is needed to handle correspondence, filings and provide trial infrastructure, a barrister can usefully advise which firm to engage, which helps to keep costs under control. The firms of solicitors who do most litigation in the United Kingdom use the bar, rather than in-house advocates, for heavy cases. Accordingly, a specialist barrister in a particular field will know which solicitors are best for the job. Barristers often charge lower fees than solicitors for equivalent time. The reason is that barristers need to sustain a smaller office. They work for themselves with no need to keep associates employed, and, as specialists in their field, they often need to do less research to get the right answer. The self-employed status of barristers also contributes to real objectivity and independence.

A solicitor's role is to give specialist legal advice and help on all matters of the law to their clients, who may be members of the public, businesses or voluntary bodies etc. This can include representing them in court, but often in complex cases this role is given to a barrister and the role of the solicitor becomes one of research and advice to the client on their case.

There are over 60,000 solicitors practising in England and Wales and their work varies enormously. Most solicitors are employed by a private practice, which is a firm of solicitors run by the 'partners' of the firm who regulate the flow of work to the solicitors. The size of the firm can vary from a huge international firm with many offices and hundreds of partners to a small practice with one or two partners. It is also possible for solicitors to work for Central and Local Government, the Crown Prosecution Service or the Magistrate's Courts Service, as well as 'in-house' with a commercial or industrial organisation.

Firms can also vary in the type of work they offer to their clients. Private practice firms are usually general practice where work will involve matters such as conveyancing (the buying and selling of houses and land), personal injury claims, representing clients in court in divorce cases or making wills, as well as offering services to businesses such as advice on contracts and partnerships. Firms can also become specialists in a particular niche field such as shipping or aviation and tailor all their services to businesses in that industry. Alternatively they can concentrate on clients who are legally aided, where they will advise their clients who are unable to afford solicitor's fees.

A career as a solicitor offers the chance to combine intellectual challenges and diverse interesting work, with the opportunity to work closely with and for many different types of people. However, training is very competitive, and anyone intending to become a solicitor should be aware of the commitment which is required. Currently there are many more students with the Legal-Practice-Course qualification than there are training contracts and the big firms can take their pick from the very best candidates.

--- Adapted from: barcouncil.org.uk, swarb.co.uk, & legaltrainee.co.uk

Questions 1 – 7

Categorize the following specialities as applying to

A barrister

B solicitor

1 appearing in court on behalf of a client, especially in rather complicated cases

2 assuming a majority of higher-level legal counseling in English courts

3 a general practitioner in the legal community

4 working for either a private practice or the central or local government, among many others

5 The most experienced could become QC.

6 wider rights of audience in courts

7 charging more money for the same amount of time

IELTS 大虾必备

barrister	[ˈbærɪstə] *n.* 出庭律师
solicitor	[səˈlisitə] *n.* 律师、法律顾问
bar	[bɑː] *n.* 律师职业、律师界 （本文主要介绍了英国律师界的一些基本情况，除此之外，常用的缩写 ABA 指的是 American Bar Association，即"美国律师协会"。）
specialise in	专门研究、专门从事 （专门研究某一领域的人是 specialist "专家"，和 expert 同义。）
self-employed	[ˈselfimˈplɔid] *adj.* 自雇的、非受雇于人的 （简单讲就是"自己雇佣自己"，接近自由职业者的生活模式。）
arbitral	[ˈɑːbitrəl] *adj.* 仲裁的 （下文出现了它的其他词形 arbitration 和 arbitrator。）
tribunal	[traiˈbjuːnl] *n.* 法庭、（审理特别案件的特定）法庭
undertake	[ˌʌndəˈteik] *vt.* 着手做、承担、负责 （什么是 undertaker？现代社会里尤指"承办丧事的人"，不是一般意义的着手做某件事情的人。）
designate	[ˈdezigneit] *vt.* 把…定名为
Queen's Counsel	（英国女王在位时的）王室法律顾问 （King's Counsel 指的又是什么呢？当然就是"王室法律顾问"喽，这里不用强调是不是女王在位啦。）
identify	[aiˈdentifai] *vt.* 识别、鉴别 （名词形式：identification *n.* --- ID Card 身份证 Identification Card）
consultant	[kənˈsʌltənt] *n.* 会诊医师；顾问 （相应词形变化：consult *v.* --- consulting *adj.*）
hallmark	[ˈhɔːlmɑːk] *n.* 标志、特征
cross-examination	*n.* 盘问、反诘问（指诉讼当事人的一方向对方证人就其所提供的证词进行盘问，以便发现矛盾，推翻其证词）
senior	[ˈsiːnjə] *adj.* 地位较高的、年资较深的、高级的 （sen 表示"老"，ior 表示形容词比较级，因此 senior 的基本含义表示"相对较老的"；依此类推，jun 表示"年轻"，所以"相对年轻的、初级的"就是 junior。那么 superior 和 inferior 又表示什么？ 首先，我们将下列两个单词列在一起： super-man super-ior superman 大家都认识，"超人"嘛！这个含义有助于理解 super- 这个前缀，表示"超、在…上方"，而前边我们提到 ior 预示该单词含有比较意味，因此，superior 表示"优秀于…的"、"高于…的"，而 inferior 是它的反义词。）
incorporate	[inˈkɔːpəreit] *vt.* 使并入、吸收 （可以这样来理解这个单词：in-corpor-ate，corp 或 corpor 表示 body，指人的身体，后来引申为"实体"，因此 incorporate 的基本含义就是"把…放入身体 / 实体当中"，进而引申为现在使用的含义；单词 corporal 表示"身体的、肉体的"这个含义也由此而来。）
multifarious	[ˌmʌltiˈfeəriəs] *adj.* 各式各样的

litigation	[ˌlitiˈgeiʃən] *n.* 诉讼、起诉 （英语单词里 lawsuit 也表示"诉讼"，侧重指民事诉讼，prosecution 侧重指刑事诉讼。）
correspondence	[ˌkɔrisˈpɔndəns] *n.* 通信、信件 （动词形式：correspond）
accordingly	[əˈkɔ:diŋli] *adv.* 因此、从而
associate	[əˈsəuʃieit] *n.* 同事、伙伴、合伙人
prosecution	[ˌprɔsiˈkju:ʃən] *n.* 起诉、检举 （和前边提到的 lawsuit 在一起记忆。）
tailor	[ˈteilə] *vt.* 针对特定对象作修改、使适应特定需要 （这个单词在文章中用得很漂亮，当 tailor 作名词的时候，它表示"裁缝"，这里活用成动词，意为"量体裁衣、根据具体的对象制作合体的衣服"，进而引申为文中的含义。）
alternatively	[ɔ:lˈtə:nətivli] *adv.* 二者择一地、如其不然 （相应词形变化 alternate *v.* --- alternative *adj.*）

重点词汇回顾 + 同义词扩充

undertake --- take on, assume, carry out
designate --- title, entitle, term, call
identify --- recognize, pinpoint, detect, ascertain
hallmark --- characteristic, trait, feature, token
senior --- leading, chief, primary, superior, major
incorporate --- include, absorb, integrate, unite
multifarious --- diverse, diversified, varied, various, miscellaneous

Exercise 2

Linguistics and Applied Linguistics: Hierarchy or Partnership?

In their day-to-day business, professionals whose work involves language in some way or another often face problems that seem to have no immediate or obvious solution within the habitual practices which demarcate their professional expertise. One avenue open to those who find themselves in this position is to have recourse to the discipline of linguistics. It is the belief that linguistics can offer insights and ways forward in the resolution of problems related to language in a wide variety of contexts that underlies the very existence of the discipline usually called applied linguistics.

Applied linguists try to offer solutions to "real-world problems in which language is a central issue", however tentative or "implied" those solutions may be. What, then, might fall within the domain of typical applied linguistic problems? A list of such problems will certainly be wide-ranging and potentially endless, but might include the following: A speech therapist sets out to investigate why a four-year-old child has failed to develop normal linguistics skills for a child of that age; A teacher of English as a foreign language wonders why groups of learners sharing the same first language regularly make a particular grammatical mistake that learners from other language background do not; An expert witness in a criminal case tries to solve the problem of who exactly instigated a crime, working only with statements made to the police; A zoologist investigates the question whether monkeys have language similar to or quite distinct from human language and how it works; A medical sociologist sets out to understand better the changes that occur in people's use of language as they move into old age.

The list could continue, and with professional diversification of the kind common in modern societies, is quite likely to grow even bigger over the years. What all these professional problems have in common is the possibility of turning to the discipline of linguistics to seek insights and potential solutions. If they were to do this, the professionals directly involved would become, even if only temporarily, applied linguists. This is different from saying that there is a community of applied linguists (usually associated with university academic departments) whose job it is to mediate (and teach) linguistics and to suggest applications.

Applied linguistics is essentially a problem-driven discipline, rather than a theory-driven one, and the community of applied linguists has characterised itself in the historiography of the discipline by variety and catholicism of theoretical orientation. This is in contrast to linguistics, where association with particular schools of thought or theories tends to exert considerably greater centripetal force.



Applied linguistics can (and should) not only test the applicability and replicability of linguistic theory and description, but also question and challenge them where they are found wanting. In other words, if the relationship between linguistics and its applications is to be a fruitful partnership and neither a top-down imposition by theorists on practitioners nor a bottom-up cynicism levelled by practitioners against theoreticians, then both sides of the linguistics/applied linguistics relationship ought to be accountable to and in regular dialogue with each other with regard to theories as well as practices.

Accountability can discomfit both communities, and abdication of accountability is sometimes the easier line to adopt. Here bi-directional accountability will be considered an important constraining influence on both the applicability of linguistics and the evaluation of applied linguistic solutions. Accountability will centre on a set of responsibilities falling on the shoulders of linguists and applied linguists in turn. These include: The responsibility of linguists to build theories of language that are testable, which connect with perceived realities and which are not contradicted or immediately refuted when they confront those realities; The responsibility of linguists to offer models, descriptions and explanations of language that satisfy not only intellectual rigour but intuition, rationality and common sense; The responsibility of applied linguists not to misrepresent theories, descriptions and models; The responsibility of applied linguists not to apply theories, descriptions and models to ill-suited purposes for which they were never intended; The responsibility of applied linguists not simply to "apply linguistics" but to work towards "relevant models" of language description; The responsibility of applied linguists to provide an interface between linguists and practitioners where appropriate, and to be able to talk on equal terms to both parties; The responsibility on both sides to adopt a critical position vis-à-vis the work of their peers, both within and across the two communities; The responsibility of both communities to exchange experience with front-end practitioners such as language teachers, psychologists or social workers, who may not have a training in linguistics nor the time or resources to "do applied linguistics" themselves, but who may be genuinely eager to communicate with both groups.

Excerpted from "Issues in Applied Linguistics" authored by Michael McCarthy, Professor of Applied Linguistics at the University of Nottingham, who has an international reputation in the field of vocabulary studies and in the application of discourse analysis. Issues in Applied Linguistics was published by Cambridge University Press, UK in 2001.

-- Adapted from: Issues in Applied Linguistics, Cambridge University Press, UK in 2001

Questions 1 – 7

*Matching the following statements with **A** (for Linguistics or Responsibility of Linguists), **B** (for Applied Linguistics or Responsibility of Applied Linguists), and **AB** (for both A and B) in accordance with the above article.*

1 theory-driven

2 problem-driven

3 being linked with a particular school of thought or theory

4 assessing the applicability and replicability of the theory of a language

5 constructing testable linguistic theories

6 embracing a diagnostic attitude regarding the research of their colleagues

7 trading experience with real-world linguistic practitioners

IELTS 大虾必备

applied linguistics	应用语言学（应用语言学家：applied linguist）
demarcate	[di'ma:keit] *vt.* 划分界限，分开、区分 （名词形式：demarcation）
expertise	[ˌekspə'ti:z] *n.* 专门知识（或技能） （还记得前文中提到过的 expert 吗？注意 expertise 这个单词的发音。）
avenue	['ævinju:] *n.* 途径、渠道 （基本含义表示“大街”，例如美国著名的“第五大道”即为 Fifth Avenue，我们祖国首都著名的“长安街”英译为 Chang'an Avenue。这里将大街、大道的含义作了进一步引申。）
have recourse to	诉诸于、求助于
discipline	['disiplin] *n.* 学科、科目
underlie	[ˌʌndə'lai] *vt.* 位于…之下、构成…的基础
domain	[dəu'mein] *n.* 范围、领域
therapist	['θerəpist] *n.* （特定治疗法的）治疗专家 （相关名词：therapy *n.* 治疗、理疗）
instigate	['instigeit] *vt.* 唆使、挑动 （相关名词：instigation）
diversification	[daiˌvə:sifi'keiʃən] *n.* 多样化 （前边提过它的词形变化，这里作以小结。diverse *adj.* --- diversify *vt.* --- diversified *adj.*）
catholicism	[kə'θɔlisizm] *n.* （首字母小写）普遍性 （如果这个单词的首字母大写 Catholicism 表示“天主教、天主教教义”。）
orientation	[ˌɔ:rien'teiʃən] *n.* 方向、定位 （前五个字母是单词 orient，其基本含义表示“太阳升起的方向，即东方”，在后来的使用中将其含义扩展为“方向”，这里在 orient 的后边加上了 ation，使它变成了抽象名词“确定方向”。 留学生刚到英语国家读书的时候，学校会在刚刚开学的时候设置 Orientation Week 情况介绍周，将学校及其所在城市情况等向学生加以介绍，使留学生很快了解其未来将要生活的环境，摸清东南西北，不会到健身中心找餐厅。此外，很多企业要求刚被雇佣的员工参加一个叫做 New Hire Orientation 的活动，即“新雇员情况介绍会”。）
imposition	[ˌimpə'ziʃən] *n.* 强加（动词形式：impose）
level ... against ...	使（话、批评等）针对…
be accountable to	负有责任的、应负责任的
with regard to	关于、在…方面
constrain	[kən'strein] *vt.* 压制、抑制、约束 （名词形式比较特别：constraint。）
refute	[ri'fju:t] *vt.* 驳斥、否认…的正确性

misrepresent	['mis,repri'zent] *vt.* 不如实地叙述（或说明）
relevant	['relivənt] *adj.* 相关的、有关的 （名词形式：relevance 或 relevancy）
interface	['intə(:)feis] *n.* 界面、接合部分、连接
peer	[piə] *n.*（才能、学识等方面）相匹敌的人 （相关单词：peerless *adj.* 无比的、无可匹敌的）
genuinely	['dʒenjuinli] *adv.* 真诚地、诚实地

重点词汇回顾 + 同义词扩充

demarcate --- delineate, delimit, define, mark out

avenue --- method, approach, methodology

underlie --- lie beneath, bring about, trigger, cause, inspire

domain --- area, field, sphere, province, realm, territory

instigate --- start, prompt, initiate, activate, set off

catholicism --- catholicity, universality

orientation --- direction, positioning, placement, location



Exercise 3

Salmon Saving

For the Nez Perce and other Native Americans of the Northwest, saving endangered salmon means saving an ancient heritage.



For decades, salmon in the Columbia and Snake River Basins — which carve through Oregon, Washington and Idaho — have been in decline, and many populations of all five salmonid species in the Northwest are now federally listed as endangered or threatened. In the 1800s as many as 1.5 million spring/summer chinook salmon alone returned annually to the tributaries of just the Snake River. By the early part of the 20th century, wild salmon runs numbered in the hundreds of thousands. But by the 1980s, all Snake River coho salmon had disappeared, and by the 1990s, the annual average count of Snake salmon was less than 10,000. As of last year, all the remaining runs of the two surviving salmon species there — chinook and sockeye — had been listed as threatened or endangered. Only seven known Snake River sockeyes returned to spawn last season.

The tribes of the Columbia Basin have an extraordinary stake in salmon recovery: for millennia, the fish have been of central importance to their culture, economy, diet and religion. Tribal leaders not only lament the loss of a way of life, they believe they owe a spiritual debt to the fish, and they are determined to see salmon restored to their rightful places in nature. To that end, the region's Native Americans talk of further asserting their treaty fishing rights — possibly in court — in order to restore salmon to the Snake River and other waterways. Those rights have already been upheld several times. In the late 1970s, vigilante groups tried to block Nez Perce from fishing in the Rapid River, which once provided some of the best salmon spawning habitat in the world and was a favourite Nez Perce fishing stream. Idaho authorities called out the National Guard. Before the crisis was over, a number of Nez Perce fishermen had served time in jail. But in 1982, an Idaho district judge dismissed all the charges, ruling that Nez Perce treaties with the U.S. government gave tribal members the right to fish in any streams their ancestors had customarily used.

At many locations where few salmon now return, including the Rapid River, that victory has a hollow ring these days. Still, other court rulings defining treaty rights also have guaranteed Columbia Basin tribes a major role in fisheries management. Now, all the federal and state agencies working on salmon restoration must include the tribes in any decisions made.

The tribes also have become politically savvy, working to build consensus for removing, or breaching, dams that block fish passage and taking other measures to improve the salmon's chances. For example, for more than a decade the tribes have been moving forward with their own fisheries programs. The Nez Perce Tribe, for example, now employs a staff of 250 in its fisheries department at the height of the season, including biologists,

technicians and engineers.

The tribe thinks restoring the fish and the health of the water may be critical for continued human survival. According to the Environmental Protection Agency, mills and other industries in the Columbia Basin regularly discharge a toxic stew of chemicals into the rivers and air — including formaldehyde, cyanide, arsenic, chloroform and dioxin. Biologists have discovered that these contaminants and others can accumulate in fish. There is evidence that such pollutants may interfere with reproduction, survivability and even the ability of salmon to navigate to spawning streams. No one yet knows if the toxics affect human health, but that question could be of special concern to those who consume a lot of fish in their diets.

Even without the problems presented by degraded and contaminated streams, the region's dams have made thousands of miles of spawning habitat difficult to reach or inaccessible. A 1960s Oregon Historical Society film shows thousands of chinooks stranded and suffocating in shallow pools below the Oxbow Dam, then just completed, in Hell's Canyon along the Oregon-Idaho border. The Oxbow is one of three dams in the canyon that cut off access for the fish to more than half the spawning grounds in the Snake River drainage, which holds 24 dams altogether. Seventy-eight more dams cross the Columbia Basin. Some, but not all, of the dams were constructed with fish ladders that can help returning adult salmon migrate upstream. Efforts over the past two decades to help juvenile salmon navigate downstream past these obstacles to make their way back to the ocean have had only limited success, however.

The upper-basin salmon populations, already affected by upriver dams, went into a precipitous decline after the construction of four dams on the lower Snake River — Ice Harbor, Lower Monumental, Little Goose and Lower Granite — built between 1962 and 1975. Harming salmon runs, of course, was not the intent, and over the years the efforts to save the fish, although they haven't brought back the dwindling runs, have been extraordinary.

Since the dams kill so many young salmon smolts headed downstream, the Corps set up a juvenile fish transportation system, using barges and trucks to speed the smolts downriver. The system is far from perfect, however, and although most transported young salmon survive until they are released in the lower Columbia River, researchers say they don't know how many later perish from the delayed effects of stress.

Tribal leaders see the Corps' array of technological fixes as human arrogance. Not only have these efforts failed to restore the fish, many of the upriver salmon stocks are now facing extinction. Thus, the region's tribes have decided to try approaches of their own. Not only are they joining with environmental groups in lawsuits and lobbying for the breaching of the four lower Snake River dams, they are working on their own to restore salmon populations. Under the umbrella of the Columbia River Inter-Tribal Fish Commission, the Nez Perce, Umatilla, Warm Springs and Yakama Tribes have put together a restoration plan called Wy-Kan-Ush-Mi Wa-Kish-Wit, or Spirit of the Salmon.

--- Adapted from: National Wildlife, Feb-March, 2000, by Vicki Monks



Questions 1 – 7

Match the following events with their corresponding date

A 1960s

B 1970s

C 1980s

D 1990s

E 1800s

1 The return of chinook salmon per annum to the tributaries of the Snake River numbered 1.5 million.

2 The die-out of all Snake River coho salmon

3 The count of Snake salmon every year averaged less than 10,000.

4 Nez Perce was obstructed from fishing in the Rapid River.

5 An Idaho judged ruled that Nez Perce had the right to fish in the streams their forefathers had used.

6 The shooting of a film exemplifying the dilemma of thousands of chinooks.

IELTS 大虾必备

ancient	['einʃənt] *adj.* 古老的、年代久远的
heritage	['heritidʒ] *n.* 遗产、遗留物 （联合国教科文组织 UNESCO 将下列中国名胜古迹列入世界遗产录 World Heritage List，请仔细阅读辨析其对应的中文。 ◆ The Great Wall ◆ Mount Taishan ◆ Mogao Caves ◆ Mausoleum of the First Qin Emperor ◆ Peking Man Site at Zhoukoudian ◆ Mount Huangshan ◆ Jiuzhaigou Valley Scenic and Historic Interest Area ◆ Huanglong Scenic and Historic Interest Area ◆ Wulingyuan Scenic and Historic Interest Area ◆ Mountain Resort and its Outlying Temples, Chengde ◆ Temple and Cemetery of Confucius, and the Kong Family Mansion in Qufu ◆ Ancient Building Complex in the Wudang Mountains ◆ Historic Ensemble of the Potala Palace, Lhasa ◆ Lushan National Park ◆ Mount Emei Scenic Area, including Leshan Giant Buddha Scenic Area ◆ Old Town of Lijiang ◆ Ancient City of Ping Yao ◆ Classical Gardens of Suzhou ◆ Summer Palace, an Imperial Garden in Beijing ◆ Temple of Heaven: an Imperial Sacrificial Altar in Beijing ◆ Mount Wuyi ◆ Dazu Rock Carvings ◆ Mount Qincheng and the Dujiangyan Irrigation System ◆ Ancient Villages in Southern Anhui — Xidi and Hongcun ◆ Longmen Grottoes ◆ Imperial Tombs of the Ming and Qing Dynasties ◆ Yungang Grottoes ◆ Three Parallel Rivers of Yunnan Protected Area）
decline	[di'klain] *n.* 下降、减少 （常用来表示"数量的减少"）
as of	自…起、直至…
stake	[steik] *n.* 赌本、赌注，利害关系
recovery	[ri'kʌvəri] *n.* 恢复、复苏 （动词形式：recover）
religion	[ri'lidʒən] *n.* 宗教（信仰） （形容词：religious。世界三大宗教：Christianity, Islam 和 Buddhism。）
tribal	['traibl] *adj.* 部落的 （名词形式：tribe）



lament	[lə'ment] *vt.* 为…悲痛、痛惜 （相应词形：lamentable *adj.* --- lamentation *n.*）
assert	[ə'sə:t] *vt.* 主张、维护、坚持 （名词形式：assertion）
treaty	['tri:ti] *n.* 条约
uphold	[ʌp'həuld] *vt.* 支持、维持、认可 （显然来自动词短语 hold up）
dismiss	[dis'mis] *vt.* 【律】驳回、不受理
rule	[ru:l] *vt.* 裁决、裁定
ancestor	['ænsistə] *n.* 祖先、祖宗
restoration	['restə'reiʃən] *n.* 恢复、复原 （动词形式：restore）
consensus	[kən'sensəs] *n.* 一致同意
breach	[bri:tʃ] *vi.* 攻破、在…造成缺口
toxic	['tɔksik] *adj.* 有毒的
contaminant	[kən'tæminənt] *n.* 污染物 （相应词形：contaminate *v.* --- contamination *n.*）
reproduction	[ˌri:prə'dʌkʃən] *n.* 生殖、繁殖 （动词形式：reproduce）
navigate	['nævigeit] *vt.* 航行、航海 （相应词形：navigation *n.* --- navigator *n.*）
degraded	[di'greidid] *adj.* 退化的、堕落的
strand	[strænd] *vt.* 使搁浅、使陷入困境
suffocate	['sʌfəkeit] *vi.* 窒息、被闷死 （相应词形：suffocating *adj.* --- suffocation *n.*）
juvenile	['dʒu:vinail] *adj.* 幼年的、初生的
precipitous	[pri'sipitəs] *adj.* 急促的；陡峭的
dwindle	['dwindl] *vi.* 缩小
release	[ri'li:s] *vt.* 释放、解放
perish	['periʃ] *vi.* 死亡、毁灭 （西方学术界有一句很有名的话 "Publish or Perish!" 表示从事研究的人，如果在一段时期之内没有按照要求在规定的期刊杂志上发表一定数量的论文或学术文章的话，最后只能另谋高就或者干脆没饭吃。）
extinction	[iks'tiŋkʃən] *n.* 消失、消灭 （形容词形式：extinct）
lobby	['lɔbi] *vi.* 游说、进行疏通 （从事以上活动的人被称为 lobbyist）

重点词汇回顾 + 同义词扩充

ancient --- prehistoric, primeval, primordial, age-old
decline --- drop, fall, decrease, deterioration, decay
recovery --- restoration, mending, improvement, renewal, recuperation
lament --- mourn, grieve (over/for), weep, wail
assert --- insist, emphasize, stress, affirm, aver, avow
uphold --- support, sustain, endorse, advocate
ancestor --- forebear, forefather, forerunner, foregoer, predecessor,
breach --- break (through), crack open, rupture
toxic --- poisonous, contaminated, noxious, lethal, deadly
contaminant --- pollutant, toxin, poison, waste product
reproduction --- breeding, procreation, propagation
degraded --- decayed, corrupted, worsened
strand --- abandon, trap, maroon, cut off
suffocate --- choke, smother, stifle, throttle
juvenile --- young, immature, puerile
precipitous --- steep, abrupt, vertical
dwindle --- decrease, decline, diminish, lessen
release --- let go, let loose, liberate, emancipate
perish --- die, decease, pass away, depart this life
extinction --- elimination, extermination, annihilation, disappearance
lobby --- petition, sway opinion, try to influence

Exercise 4

An Exploration of Alchemy

Alchemy is one of the two oldest sciences known to the world. The other is astrology. The beginnings of both extend back into the obscurity of prehistoric times. According to the earliest records extant, both of them were considered as divinely revealed to man so that by their aid he might regain his lost estate.

In spite of what many people may believe, Alchemy is not dead. The practice of Alchemy has continued for more than two millennia, some say it is nearly as old as human civilization itself. For a time in the Dark Ages, it was also thought to have been dead, but it re-emerged in Western Europe in the twelfth century. Alchemy and its underlying principles have evolved over time, much like the transformation of metals with which it is concerned, it too has transformed into something else.

In Alchemy, the primary aspiration was to change ordinary metals into gold. The secondary aim was to achieve spiritual perfection. The alchemists viewed their work as a melding of spirituality and science. Their belief was that matter has a common soul which alone is permanent, the body, or outward form, being merely a mode of manifestation of the soul and therefore transitory and transmutable into other forms.

The beginnings of Alchemy can be traced to the ancient Egyptian city of Alexandria, which was the acknowledged center of the intellectual world about 300BC. But to better understand Alchemy requires a step backward to the times of Aristotle and Plato, who lived about a century earlier. At that time, there were two opposing views concerning the nature of matter. Aristotle believed that matter is continuous and therefore capable of infinite subdivision, but Epicurus, elaborating the pre-Aristotelian views of Democritus, held it to have a grained or discontinuous structure, consisting of atoms of the same primordial material which differed in their size, shape and form. Aristotle held that the basis of the material world was something called 'prime' or 'first matter'. The embodiment and realization of the prime matter came through the first stage of form, found in the four elements of Earth, Air, Fire and Water. The elements are related by qualities of dry (cold), moist, hot and dry. Each basic element was characterized by an imbalance in proportion of the basic qualities, so fire was characterized by hot and dry, as water was by cold and wet. Thus, each element could be transformed in another by changing the quality which they share.

Plato ascribed to the theory of the four elements constituting all other substances. He had an idea that the constituting units (particles) of the four elements were based on the geometry of triangles. He considered gold as consisting of homogeneous particles (which today we know is true). Here is an explanation by Plato regarding these four elements:

...out of the elements of this kind, the body of the universe is created, being brought into concord through proportion; and from these it derived friendship, so that coming to unity with itself, it became dissoluble by any force, save the will of him who joined it. Now the making of the earth took up the whole bulk of each of these four elements.

The alchemists adopted Aristotle's theories into their art. Early alchemical theories of the origin

and changes of matter were based on their interpretation of the four elements as constituents of matter, principally as formulated by Plato and Aristotle. Their reasoning, in attempting to accomplish the feat (of transmutation to gold), was based on their belief in the unity of matter, and in the existence of a potent transmuting agent known as the "Philosopher's Stone". The "Philosopher's Stone", which had many other names, was that mystic substance that, when combined with base metals would remove the impurities of those metals result in the transmutation to (the pure metal of) gold or silver.



A depiction of the four elements blending in universal creation

Closely connected to the symbolism of the "Philosopher's Stone", was the concept of the Prima Materia, or primary material, which was thought to be a prime, chaotic matter, which might come into actual existence if impressed by 'form'. In time, the alchemists came to modify the theory of the four elements, apparently to better suit the model of their pursuit.

The books and manuscripts explaining the chemicals and processes were obscure and subject to various interpretations. The symbolic language used was incomprehensible except to an initiated few. It is clear that a majority of these manuscripts are nothing more than cryptic recipes and processes conveyed through intricate drawings and diagrams which are awe-inspiring. Most of the earlier records contain recipes which would be used by the goldsmiths to make gold alloys harder, heavier or more brilliant (in color). Some of the ingredients used by the alchemists include copper, lead, sulfur, arsenic, urine and bile. They would mix these ingredients together in the proper proportions, then try to remove the "impurities", to be left with gold or silver. Heat was the fundamental requirement of nearly every alchemical process, from distilling dew to smelting lead. Indeed it seems that they tried just about everything.

However, without the technical knowledge and understanding, the alchemists were in effect just "spinning their wheels". They possessed neither the knowledge of atomic structure nor a refined technical apparatus. Many rumours remain about how this alchemist or that one succeeded in creating or capturing some of this elusive substance, but they all seem to lack any credibility. All of these things and more contributed to its demise.

A sixteenth century physician and alchemist named Parcelsus changed the course of history by insisting that the true goal of Alchemy was finding medical cures. Some of his followers abandoned their search for the "Philosopher's Stone" and focused on more constructive experiments, resulting in many important discoveries. Then in 1645 the Royal Society of London, a national academy of science, was formed and began to hold weekly meetings. King Charles II inaugurated the group, and it was Robert Boyle, one of the groups' first members, whose published work *Skeptical Chemist* (1661) challenged the long accepted principles of Aristotle's four elements, and the alchemists three. It was the final blow to Alchemy, which came to be replaced by more rigid (and productive) sciences — namely chemistry and physics.

--- Adapted from: greatdreams & mark.foster.cc

Questions 1 – 6

Classify the following statements with A, B, C, D, E and F

A Aristotle

B Epicurus

C Plato

D Parcelsus

E Boyle

F King Charles II

1 Gold comprises homogeneous particles.

2 retargeting the goal of Alchemy to heal rather than change metals into gold

3 Publication of *Skeptical Chemist*

4 principle of four elements

5 The universe （proper） was brought into harmony by proportion.

6 calling the basis of the material world “prime”

7 Matter has discontinuous structure.

IELTS 大虾必备

alchemy	['ælkimi] *n.* 炼金术
astrology	[əs'trɔlədʒi] *n.* 占星术 (astr- 表示"星星"，-ology 表示"科学、学问"。所以 astrology 表示"研究星星位置的科学"。类似的例子: disaster, 可以分成两个部分看 dis-aster,"否定含义＋星星"，古罗马人相信星位不正就代表不祥，必有灾祸发生，因此，这个单词表示"灾难"。)
obscurity	[əb'skjuəriti] *n.* 蒙昧、昏暗 (下文中出现了它的形容词形式 obscure。)
prehistoric	['pri:his'tɔrik] *adj.* 史前的
extant	[eks'tænt] *adj.* 现存的、现有的
re-emerge	['ri:i'mə:dʒ] *vi.* 重新浮现、重新出现 (这里的 re 表示"再一次"，emerge 表示"出现、浮现"。名词形式 re-emergence。)
evolve	[i'vɔlv] *vi.* 进化、发展 (名词形式：evolution)
aspiration	[ˌæspə'reiʃən] *n.* 热望、渴望 (动词形式：aspire)
manifestation	[ˌmænifes'teiʃən] *n.* 表现（形式） (动词形式：manifest)
opposing	[ə'pəuziŋ] *adj.* 相反的、对立的 (相应词形变化：oppose *v.* --- opposition *n.*)
infinite	['infinit] *adj.* 无限的、无穷的 (英国著名诗人 William Blake 曾写下一段十分美丽的诗句： To see a World in a Grain of Sand, And a Heaven in a Wild Flower; Hold Infinity in the palm of your hand, And Eternity in an hour. 粗略地理解为"从一粒沙子看到一个世界，从一朵野花看到一个天堂，把握在你手心里的就是无限，永恒也就消融于一个时辰"。由小见大，可见其磅礴气势。国内有中文功底深厚者将其译为"一花一世界，一沙一天国；君掌盛无边，刹那含永劫"。)
elaborate	[i'læbərit] *vt.* 详细阐述
primordial	[prai'mɔ:djəl] *adj.* 原始的 (上一篇文章"重点词汇回顾＋同义词扩充"部分已经列举了这个单词。)
embodiment	[im'bɔdimənt] *n.* 具体化、具体体现 (动词形式：embody)
constitute	['kɔnstitju:t] *vt.* 构成、组成
substance	['sʌbstəns] *n.* 物质
triangle	['traiæŋgl] *n.* 三角形 (tri- 表示"数字三"，相关例子 triple--- *adj.* 三重的、三倍的；trilingual--- *adj.* [能讲] 三种语言的)
regarding	[ri'ga:diŋ] *prep.* 关于
concord	['kɔŋkɔ:d] *n.* 和谐、一致、协调 (concorde 从拼写上来看比 concord 多了一个字母 e，表示"协和式飞机"，英法合造的超音速客机。)

constituent	[kən'stitjuənt] *n.* 组分、成分
formulate	['fɔ:mjuleit] *vt.* 阐述、明确地表达 （名词形式：formulation）
feat	[fi:t] *n.* 功绩、壮举
agent	['eidʒənt] *n.* 【化】剂
mystic	['mistik] *adj.* 神秘的
impurity	[im'pjuəriti] *n.* 杂质、混杂物 （相关单词：impure *adj.* --- pure *adj.* --- purity *n.*）
symbolism	['simbəlizəm] *n.* 象征主义 （相关单词：symbol *n.* --- symbolize *vt.*）
chaotic	[kei'ɔtik] *adj.* 杂乱的、无秩序的 （名词形式 chaos，这个单词比较有效的记忆方法是将它的拼写想象成汉语拼音"吵死"，能让人觉得很吵的环境一定是很乱的，这个名词的含义就是"混乱、混沌"。但是一定要注意发音，不要把汉语读音读出来哦！）
modify	['mɔdifai] *vt.* 更改、修改 （相关单词：modification）
manuscript	['mænjuskript] *n.* 手稿、原稿 （可以拆分为 manu-script，表示"手＋写"，用手亲笔写出来的文章。类似的单词如 manual *adj.* 手工的 /*n.* 手册）
initiate	[i'niʃieit] *vt.* 开始、发起 （前边已经提到过它的形容词形式 initial。）
recipe	['resipi] *n.* 方法、诀窍；处方
awe-inspiring	['ɔ:in,spaiəriŋ] *adj.* 使人产生敬畏之心的、令人惊叹的
ingredient	[in'gri:djənt] *n.* 成分
fundamental	[,fʌndə'mentl] *adj.* 基础的、基本的
refined	[ri'faind] *adj.* 精确的、精致的 （动词形式：refine）
rumour	['ru:mə] *n.* 传闻、谣言 （还可以写成 rumor，"散步流言蜚语的人"叫做 rumourmonger。）
elusive	[i'lu:siv] *adj.* 难以表述的、令人困惑的
credibility	[,kredi'biliti] *n.* 可信性 （形容词形式：credible，而 incredible 则表达"不可思议的、难以置信的"。一般作褒义词用，但也会听到英语国家的人见到一个腰围等于身高的人身着紧身连衣裙时的效果，发出 incredible 的感叹，想必是慨叹她的勇气！）
demise	[di'maiz] *n.* 中止、死亡
inaugurate	[i'nɔ:gjureit] *vt.* 开辟、创新 （相关单词：inauguration *n.* --- inaugural *adj.*）

重点词汇回顾 + 同义词扩充

obscurity --- oblivion, murkiness, ambiguousness
prehistoric --- primeval, primitive, ancient, primordial
extant --- existing, existent, present, surviving
evolve --- grow, progress, develop, advance
manifestation --- exhibition, expression, indication, demonstration
opposing --- opposite, contrasting, conflicting, divergent, contradictory
elaborate --- expound, go into detail, particularize
embodiment --- epitome, incarnation, quintessence
regarding --- concerning, about, as regards, on the topic of
concord --- harmony, accord, unity
formulate ---frame, verbalize, voice, articulate
mystic --- mystical, sorcerous, supernatural
chaotic --- disordered, muddled, messy, tumultuous
modify --- adapt, adjust, amend, refashion, revise
fundamental --- basic, primary, elementary, elemental
elusive --- indefinable, intangible, obscure
demise --- death, decease, departure, termination
inaugurate --- launch, initiate, start up, institute, establish

MULTIPLE CHOICE QUESTIONS

Exercise 1

50 Years of British Popular Culture

QUEEN Elizabeth II's Golden Jubilee celebrations in June began with a nostalgic rendition of The Beatles' "All You Need Is Love". The song recalled its recording exactly 35 years earlier as part of the first worldwide satellite television link-up. As such, its use could not have been more appropriate as an introduction to 50 years of Elizabethan popular culture, whose two outstanding expressions have been TV and popular music. As if to drive home the point, the celebrations concluded with the televised Party at the Palace, attended by the Queen herself, with former Beatle Sir Paul McCartney singing his comic love song to the Queen, Her Majesty.

In one respect, the central role played by TV in the Queen's Jubilee celebrations nicely rounded a circle. It was the Queen's Coronation, after all, that ushered in the television age, with half the adult population viewing the ceremony 'live'. Most of those watching did not own a television at the time. In 1951, BBC TV, the only available channel, had just 600,000 viewers. By the end of the century, watching TV was the most popular leisure activity everywhere. In Britain, around 94 per cent of homes now have at least one colour TV and 66 per cent a video cassette recorder. British people spend an average 25.5 hours a week watching TV, with, on a typical day, 80 per cent of the population tuning in. Moreover, when it comes to TV programmes made in this country, the UK is second only to the US in terms of worldwide exports, with sales amounting in 2001 to around two-thirds of a billion dollars.

Perhaps the best statistic to bring home the ubiquitous nature of TV at the turn of the century, and of British TV in particular, is the fact that the internationally televised funeral of Princess Diana from London in September 1997 was watched by an estimated 2.5 billion people. That is 2,500,000,000 viewers!

If the Queen's Coronation was the beginning of the television age, however, BBC Radio remained the pre-eminent form of popular culture throughout the 1950s, with *The Goon Show*, a favourite of Prince Charles, providing a highlight. The *Goons* ran from June 1952 to January 1960, capturing a pre-eminent British characteristic of the last 50 years: a surreal form of humour that lampooned all forms of pomposity and hypocrisy.

The *Goons* gone, TV quickly adopted the same theme through situation comedies such as *Till Death Us Do Part*, with its working-class bigot Aif Garnett, which, for a time in the 60s, was the most popular programme in Britain with 18 million viewers. More cerebral TV comedy in the 60s came in the

form of contemporary satire such as *That Was The Week That Was* and the accessible absurdity of *Monty Python's Flying Circus*, which, surprisingly, perhaps, in view of the fact that British comedy is so typically British, has been viewed in every country in the world.

In the meantime, Independent TV (ITV), funded, in contrast to the BBC's licence fee, through televised advertising in the form of commercials, began broadcasting in 1955. The number of TV channels grew to three with the start-up of BBC 2 in 1964, to four with Channel 4 in 1982, and five with Channel 5 in 1997, while colour TV was available from 1968.

Throughout this period, Britain led the world in certain kinds of programme. One of the most notable is the "costume" or historical drama, with English novelists such as Jane Austen, Charles Dickens, and Evelyn Waugh becoming as familiar in Beijing as in Bagshot (Waugh's *Brideshead Revisited*, filmed by Granada in 1979, proved popular in China).

Educational documentaries such as Sir Kenneth Clark's *Civilisation* (1969), Dr Jacob Bronowski's *The Ascent of Man* (1973) and Sir David Attenborough's *Life on Earth* (1979) also provided instructive entertainment. The close of the Millennium brought a landmark BBC series that broke all viewing records for documentaries and has so far been exported to more than 70 countries. This was *Walking with Dinosaurs*, which took the latest computer animation to pre-history.

Children's programmes are another British TV speciality, with Carlton's animated *Mole's Christmas* having already been sold to over 200 countries. Quiz programmes such as the BBC's *The Weakest Link* have also had impressive international sales, together with police or detective series such as *Inspector Morse*, currently on view in 211 countries.

But all these genres become mere niche markets when compared to the dominant force in UK TV, and everywhere else. This is the "soap opera", which has around a third of the nation addicted to its multifarious expressions. Britain's first, longest-running, and still most popular "soap" is *Coronation Street*, aptly titled for a survey of Elizabethan pop culture, which started on ITV in 1960. Not only is the programme Granada's biggest seller in terms of income, due to the volume available, it has also proved almost as potent in maintaining Commonwealth ties as the Queen herself. In fact, the *Street* is watched as avidly in Canada and New Zealand as it is in Britain and the Coronation Street website has more "hits" from Canada than anywhere else. In 1985, the BBC launched its own soap, *EastEnders*, which occasionally even overtakes the queen of all soaps in viewing figures. If soaps are an international phenomenon, however, British soaps are very different from their main, US and Australian, rivals. And that difference says a lot about the British character. For while American soaps concentrate on the rich, and Australian soaps on the middle class, the British brand has both a strong working-class bias and an overwhelming regional identity. *Coronation Street*, for instance, is both filmed in and representative of Manchester, while *EastEnders* is London in nature, accent and location. Moreover, unlike their foreign rivals, both series are committed to ideas of community and determined to engage in social issues.

Undoubtedly, then, television has proved the most visible expression of pop in Britain since 1952. But the start of the new Millennium revealed an astonishing statistic: people were suddenly spending more time listening to the radio than watching the "box". And their favourite station by far is BBC Radio 2, which has 13 million listeners every week. What is particularly interesting about this statistic is that Radio 2 specialises in nostalgia for the "pop" music of the last 50 years, a period dominated by The Beatles.

--- *Adapted from: Contemporary Review, Nov, 2002*

Questions 1 – 7

Choose the answer best pertaining to the author's idea in the article.

1 Two spectacular features of 50 years of British popular culture are ________.

- a radio and TV
- b punk and radio programmes
- c TV and popular music
- d Gypsy music and Hippy dance

2 ________ marked the beginning of an era of TV.

- a Queen's marriage
- b Queen's Coronation
- c Queen's birthday
- d Queen's Commemoration

3 The example cited above in the passage prove the omnipresence of TV is ________.

- a wedding ceremony of Prince Charles and Princess Diana
- b Queen's Coronation
- c Death of George VI
- d funeral of Princess Diana

4 Instructive entertainment includes ________.

- a *The Ascent of Man*
- b *Till Death Us Do Part*
- c *Brideshead Revisited*
- d *Sense and Sensiblity*

5 ________ could be compared with the Queen Her Majesty as regarding maintaining the relations of Commonwealth countries.

- a BBC Children's programme
- b A soap opera named *Coronation Street*
- c A soap opera named *EastEnders*

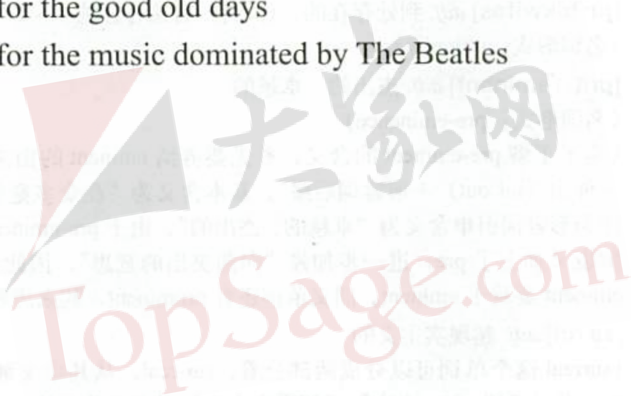
d *Walk with Dinosaurs*

6 British soap operas are ____________ their American and Australian counterparts.

a very similar to
b almost the same as
c enormously distinct from
d Siamese twins of

7 Presently the most warmly embraced radio station in Britain is BBC Radio 2 because it caters to the general public's ____________.

a nostalgia for popular music
b nostalgia for the popular music since Queen's ascension of the throne
c nostalgia for the good old days
d nostalgia for the music dominated by The Beatles



IELTS 大虾必备

Golden Jubilee	（君主即位等的）五十周年纪念 （Silver Jubilee 二十五周年纪念； Diamond Jubilee 六十周年或七十五周年纪念 jubilee 这个单词的由来： In the Hebrew Scriptures, jubilee refers to a year of rest to be observed by the Israelites every 50th year, during which slaves were to be set free, alienated property restored to the former owners, and the lands left untilled. 犹太教《圣经》中以色列人遵守的每五十年一次的休息年，这一年中奴隶获得释放，抵押出去的财产归还原主，土地修耕。）
nostalgic	[nɔ'stældʒik] *adj.* 怀旧的、恋旧的、乡愁的 （名词形式：nostalgia）
rendition	[ren'diʃən] *n.* （体现对作品特定理解的）表演（方式）、演奏（方式） （动词形式：render）
drive home	把…讲得透彻明白，使充分理解
respect	[ris'pekt] *n.* 方面、着眼点
ubiquitous	[juː'bikwitəs] *adj.* 到处存在的、（同时）普遍存在的 （名词形式：ubiquity）
pre-eminent	[pri(ː)'eminənt] *adj.* 杰出的、卓越的 （名词形式：pre-eminence） （为了了解 pre-eminent 的含义，首先要弄清 eminent 的由来。e-min-ent 表示"出来＋伸出（jut out）＋形容词后缀"，基本含义为"在众多竞争者或同类中脱颖而出"，作为形容词引申含义为"卓越的、杰出的"。由于 pre-eminent 这个单词在 eminent 的前边又加上了 pre，进一步加强"向前突出的意思"，因此从表达程度上来讲，pre-eminent 要重于 eminent。同义单词还有 prominent，其来历和前两个单词很接近。）
surreal	[sə'riːl] *adj.* 超现实主义的 （surreal 这个单词可以分成两部分看，sur-real，从其中文翻译的含义来看，很明显 sur- 表示"超、在…上方"。"超现实主义"对应的英文是 surrealism，"超现实主义者"即为 surrealist。同样道理，继续思考如下几个单词的含义： surface --- sur-face [名词。字面意思"在脸的上方"，表达"表面"。] surmount --- sur-mount [动词。字面意思"跨越山的上方"，跨越山顶，表达"克服、超越、战胜"。] surpass --- sur-pass [动词。字面意思"从…上方过"，表达"凌驾、超过"。]）
pomposity	[pɔm'pɔsəti] *n.* 虚夸、浮华 （形容词形式：pompous）
hypocrisy	[hi'pɔcrəsi] *n.* 虚伪、伪善 （相应词形变化：hypocrite *n.* 伪君子 --- hypocritical adj.）
situation comedy	情景喜剧（常被缩略为 sitcom）
bigot	['bigət] *n.* 偏执的人、心地狭窄的人 （抽象名词：bigotry *n.* 偏执、顽固）

absurdity	[əbˈsə:diti] *n.* 荒诞、荒谬 （形容词形式：absurd 对欧洲文学、戏剧感兴趣的人必然知晓由 Samuel Beckett 创作的《等待戈多》*Waiting for Godot*，这部作品在荒诞剧 The Theatre of the Absurd 的舞台上占有非常重要的地位。）
documentary	[ˌdɔkjuˈmentəri] *n.* 记录片、文献片
ascent	[əˈsent] *n.* 上升、进步 （相关单词：ascend *v.* --- 反义词 descend *v.* --- descent *n.*）
landmark	[ˈlændma:k] *n.* 纪念碑、里程碑
animation	[ˌæniˈmeiʃən] *n.* 动画片
genre	[ʒa:ŋr] *n.* 种、类、类型 （这个单词来自古法语，读音上给人感觉有点异域 exotic。）
dominant	[ˈdɔminənt] *adj.* 占统治地位的、支配的 （相应词形变化：dominate *v.* --- domination *n.* --- dominating adj.）
addicted	[əˈdiktid] *adj.* 沉溺于某种嗜好中的 （相应词形变化：addict *vt.* --- addict *n.*；注意：这两个单词写法一样，但是读音不同。进一步体会 addict 作名词的用法——“特别能抽烟的人”可以用 a heavy smoker 来表达，也可以说 a nicotine addict，意为“对尼古丁上瘾的人”，变换了表现角度。）
avidly	[ˈævidli] *adv.* 热心地、贪心地 （相应词形变化：avid adj. --- avidity *n.*）
launch	[lɔ:ntʃ] *vt.* 开办、发动、发起
overtake	[ˌəuvəˈteik] *vt.* 赶上、超过
rival	[ˈraivəl] *n.* 竞争者、对手
nostalgia	[nɔsˈtældʒiə] *n.* 怀旧、恋旧

重点词汇回顾 + 同义词扩充

rendition --- rendering, version, interpretation, delivery, performance
pre-eminent --- eminent, prominent, distinguished, prestigious, exalted, outstanding
ascent --- rise, ascension, mounting, rise
landmark --- milestone, benchmark
genre --- type, kind, sort, category
dominant --- prevailing, governing, principal, major, chief
addicted --- hooked, habituated, dependent
avidly --- keenly, enthusiastically, passionately, ardently, fervently
launch --- initiate, commence, unleash, inaugurate, start
overtake --- go beyond, leave behind, outdo, surpass
rival --- competitor, opponent, adversary, contender

Exercise 2

Eye-Catching Advertisement

With so many competing products, advertising has to work harder than ever. It now is among the most important media of the advanced world. One of its best theorists, the Australian Paulie Boutlis, calls it "the very public conscience of the new society", and says that any residual guilt felt by admen and women over their profession should be cast aside, because both the creators of advertising and its audience are complicit in an "open, diffuse and indeterminate" universe. One of its most successful practitioners, Al Young, the senior creative director at the St. Luke's agency, says that advertising is "social messages", that he and his colleagues are "trying to give a purpose to the brands" they advertise. Both agree, however, that the prime purpose is to grab attention; it is simply that attention-grabbing techniques have changed significantly. They have done so in two particular ways: first, in enlisting pornography; second, in enlisting social conscience.

Over the past year, billboards have carried a number of campaigns showing women, naked or barely clothed. Anna Friel, a TV star in a low-cut gown, invites customers to "come to bed" on a reclining seat of Virgin Atlantic's Upper class service. And everywhere, French Connection UK plasters its acronym, FCUK, with the transparent intent of equating its products with the most common oath in English speech. Al Young is candid about the mechanism now in play. However, it is not always about sex. One of the most successful of the St. Luke's campaigns has been for the Swedish furniture store Ikea, featuring authoritarian Swedish managers bossing about clueless English staff. One ad abjured TV viewers to "Chuck out the chintz" — that is, get rid of awful English furniture and buy smart Swedish stuff. In the past month, Young has been on Radio 4's Today programme to defend another Ikea ad, this time in the Sun, which showed a tough Swedish manager locking his English subordinates in a room for 12 days to show them what waiting for a piece of furniture for that long is like (an Ikea selling-point is that customers pick up what they buy and take it home right away). This was a triumph for Young's client, which spends only about one-fifth of other furniture stores' media budgets.



Sex has become more explicit in ads because it has become so in the media — most vividly, over Bill Clinton's affair with Monica Lewinsky. As Paul Begala, a former Clinton adviser, put it, the media now are "not liberal leaning but scandal leaning", giving sexual explicitness the respectable coating of investigative journalism.

But the second advertising trend — social conscience — has been more contested. At the centre of

this is the Milanese photographer Oliviero Toscani and his former client, the Italian clothing company Benetton. Over the past two decades, Toscani — whose father, a news photographer, took the famous shot of the murdered Mussolini and his mistress, hanging by their feet like trussed chickens — has blasted Benetton to fame. His "good message" shots were of young people of all colours — black, white, brown, yellow — in Benetton clothes. Luciano Benetton gave Toscani full artistic control of his company's campaigns. No wonder — Benetton just sold colourful jumpers, but the "United Colours" campaign, in Al Young's phrase, gave "the brand a purpose". But Toscani wanted to go further. Access to thousands of poster sites and millions of magazine and newspaper pages was, in his words, a responsibility as well as a contract — a responsibility to say something. And what he wanted to say, last year, was that the death penalty in the US was wrong. He gained access to death rows in a number of US prisons — in at least one case, according to the prison authorities, fraudulently. He shot poignant pictures of men and women about to die. The campaign, carefully prepared, went up all over the US — just at the time when Benetton's US executive vice-president, Carlo Tunioli, had signed a deal with Sears to incorporate Benetton in its superstores, giving the company a promise of 800 more outlets where previously it had fewer than 200. By the middle of last year, 400 had already been opened. Then the "Sentenced to Death" campaign began.

In Louisville, Kentucky, Donata and Emery Nelson saw, on a billboard, a picture of the man who had abducted, tortured and then killed their teenage son. They were furious that Toscani had turned him into a martyr. They began a campaign, picketing Sears wherever they could get a pro-death sentence group together. Sears cancelled the Benetton contract. Toscani's reaction was "I am proud, really proud of what I did". Benetton, however, fired Toscani; the great commercial-radical partnership was over.

But it may be more of a temporary retreat than a strategic defeat. Toscani went too far in advertising terms — the acres of publicity were outweighed by the damage he did his client in the lost deal with Sears. But he established a precedent: the overt and committed linking of advertising to social or civil libertarian causes.

The ad world, able to produce images, understand trends and catch attention, is now central to our lives, our imaginations and — its best minds now think — our consciences.

--- Adapted from: New Statesman, Jan 29, 2001, by John Lloyd

Questions 1 – 7

Choose the one best manifesting the author's idea in the article.

1 Almost all the admen and women agree on one point that the ________ of their business has remained the same, but its ________ have been amended dramatically.

- a ultimate goal; procedures
- b principal aim; methods
- c major goal; operations
- d original intention; approaches

2 ________ and social conscience are two specific resorts most commonly employed in the advertisement industry.

- a Sexually explicit materials
- b Sexy pictures or footages
- c Sexually provocative approaches
- d Outrageous sexual descriptions

3 The advertisement featuring a famous TV woman on a reclining seat was created for ____________.

- a Virgin Atlantic's Upper
- b Virgin
- c Atlantic virgin
- d Virgin Atlantic

4 According to the article, one of Ikea's selling points is ________.

- a completing a furniture design within twelve days
- b completing a furniture design within seven days
- c customers take home what they have bought right after paying the money
- d customers take home the furniture they have chosen right after the completion of its design

5 On the basis of Paul Begala's remarks, presently the media staff do not care about the liberty of communication very much because it is _______ that could help them make money.

a leaning

b scandal

c rumor creating

d liberality

6 According to the article, "Toscani ...has blasted Benetton to fame" means that _________.

a he has given Benetton a purpose

b he has brought a huge fortune to Benetton

c he has bombed Benetton to ashes

d he has become very famous because of Benetton

7 Benetton fired Toscani because _____________.

a he thought the death penalty in US was wrong

b he killed a teenage boy in Louisville, Kentucky

c he went too far in advertisement phrases and made Benetton's cooperation with a giant client impossible

d he broke the Nelsons' hearts

IELTS 大虾必备

conscience	['kɔnʃəns] *n.* 良心、道德心
residual	[ri'zidjuəl] *adj.* 剩余的、残留的
complicit	[kəm'plisit] *adj.* 有同谋关系的、串通一气的
colleague	['kɔli:g] *n.* 同事、同僚 （这个单词可以这样理解，col-league，表示"共同＋社团"，作名词，基本含义是"在同一个社团一起工作、学习过的人"，它的用法要比中文翻译的"同事"所包含的内容广。例如，大学老师也会很客气地将自己的学生称为 colleague，这时它就表示在同一所学校一起学习过的人。）
prime	[praim] *adj.* 主要的、根本的
enlist	[in'list] *vt.* 谋取…的赞助（或支持）、利用 （基本含义指的是"征募入伍"，这里使用的是引伸义。）
equate	[i'kweit] *vt.* 等同、显示…的密切关系 （相关单词：equal *adj.* --- equality *n.* --- equivalent *adj.*）
clueless	['klu:lis] *adj.* 无知的、愚蠢的 （clue 是名词，表示"线索"，加上了"less"这个形容词后缀，表示"没有线索的"，做事情总找不到头绪，摸不着头脑，这里便翻译如上。）
subordinate	[sə'bɔ:dənit] *n.* 下属 （subordinate 可以理解为 sub-ordinate，基本含义为"在…之下＋按次序排列"，所以作名词表示"下属"，如果作形容词，表示"下级的、次要的、从属的"。）
triumph	['traiəmf] *n.* 胜利、成功
budget	['bʌdʒit] *n.* 预算
explicit	[iks'plisit] *adj.* 不含糊的、显而易见的 （反义词 implicit）
former	['fɔ:mə] *adj.* 从前的、以前的 （反义词 latter *adj.* 后面的、后者的）
scandal	['skændl] *n.* 丑闻、丑事
journalism	['dʒə:nəlizəm] *n.* 新闻业、新闻工作 （jour 在法语中表示"一天"，因此 journal 表示"日志、日记；日报"，"期刊、杂志"的含义是后来引申得来的；进而，journalism 表示"把每天发生的事情都记录下来的行业"。）
blast	[bla:st] *vt.* （用炸药等）炸
death penalty	死刑
executive	[ig'zekjutiv] *adj.* 执行的、行政的 （介绍某人是某公司的 CEO 是近些年较常见的说法，这里 CEO 指 Chief Executive Officer，运用了 executive 这个单词，表示"首席执行官"。那么公司里的 CFO/CIO/COO 又指什么呢？它们分别代表 Chief Financial Officer 财政总监，Chief Information Officer 咨询总管，和 Chief Operation Officer 运营总监。）
outlet	['aut-let] *n.* （商品的）销路、市场、商店
abduct	[æb'dʌkt] *vt.* 诱拐、绑架 （名词形式：abduction）

torture	['tɔ:tʃə] *vt.* 虐待、折磨（目前很多痛恨雅思考试可又不得不参加“考鸭”的同学将该考试的英文缩写 IELTS 戏谑地称为 International English Language Torturing System——国际英语语言虐待系统！）
furious	['fjuəriəs] *adj.* 狂怒的、暴怒的 （名词形式：fury）
martyr	['ma:tə] *n.* 烈士、殉难者
retreat	[ri'tri:t] *n.* 退却、撤退
strategic	[strə'ti:dʒik] *adj.* 战略（上）的 （名词形式：strategy 表示“战略”。我们习惯讲“战略战术”，后者对应英语单词 tactics，其形容词形式是 tactical）
outweigh	[aut'wei] *vt.* 在价值（重要性、影响等方面）超过、在重量上超过 （如果将这个单词分成两部分 out-weigh，理解它的含义就一点儿都不难啦。带着理解它的感觉去体味一下下列动词： outgo [走得比…远 / 快、越过] outnumber [在数量上超过、比…多] outlive [比…活得长，活过]）
precedent	[pri'si:dənt] *n.* 先例
overt	['əuvə:t] *adj.* 公开的、明显的 （反义词 covert *adj.* 隐蔽的、隐藏的）

重点词汇回顾 + 同义词扩充

residual --- remaining, left over, lingering
colleague --- coworker, associate, teammate, collaborator
prime --- chief, primary, principal, major
enlist --- recruit, conscript, enroll, employ
equate --- liken, connect, parallel, link
clueless --- inexperience, incompetent, ignorant
subordinate --- junior, underling, helper, assistant
triumph --- victory, accomplishment, feat, success
explicit --- obvious, unequivocal, perspicuous
scandal --- disgrace, dishonour, shame, humiliation
outlet --- market, store, shop, retailer; channel
abduct --- kidnap, take hostage, take prisoner, hold somebody against his or her will
torture --- torment, afflict, brutalize, mistreat
furious --- angry, livid, fuming, infuriated
retreat --- withdrawal, hideaway, flight
strategic --- deliberate, premeditated, considered, planned
outweigh --- overshadow, prevail over, dwarf
overt --- obvious, explicit, unconcealed, evident, manifest

SUMMARY

Exercise 1

Fraud in Science

For many years physicists lagged way behind biologists in the perpetration of scientific fraud. But in 2002 they have caught up in spectacular style with the ambitious opus of Jan Henrik Schon of Bell Labs, who placed seven of his fictive works in Nature and nine in Science. Schon was even talked about as a possible Nobel Prize winner. But other researchers grew more and more suspicious until finally someone pointed out that he had published identical graphs in separate papers, supposedly on different phenomena. The laboratory convened an external investigation panel and Schon was found guilty of misconduct and sacked.

Fraud in science is a minor irritant from one perspective, a serious problem from another. Most instances of fraud concern work of little importance and are quickly forgotten. Some practitioners forsake the safety of mundane fabrication and concoct spectacular experiments about matters at the cutting edge of their fields. But one can argue that the more ambitious the fraud, the more quickly it will be discovered.

The Schon case does not strongly support this contention. His fraud remained undetected for two years. He was detected because of an insider's tip, not by the usual checking mechanisms of science: refereeing and replication. Had he had the good sense to stop in time, his oeuvre might have gained him a professorship from which he could have directed the work of an army of honest PhDs and laid a firmer basis for his scientific standing. Perish the horrid thought that undiscovered Schons throng the halls of academe.

Science is a cumulative process, however, and in the long run each brick must bear the load of those placed above it. So there is much force to the argument that incorrect results of any kind—whether obtained by fraud, self-deception, or other regrettable human frailties—cannot last indefinitely.

But they can last a long time, breezing past the conventional checkpoints of scientific quality without the slightest difficulty. This is the sense in which fraud is a serious problem, both of methodology and of public relations. Scientists point to the refereeing system as a guarantor of quality, but in the next breath will assert that referees cannot be expected to detect fraud. In fact, a referee, who after all is just doing an unpaid paper review, cannot test for much more than plausibility. That's a useful function, but it's not very effective as a screen against fraud.

Replication is central to scientific methodology, but in practice it's almost never an exact duplication of the kind necessary to support an accusation of fraud. There are plenty of honest reasons why two researchers may get different results from the same experiment. A claim that cannot be replicated is generally ignored, not publicly repudiated. Like refereeing, replication plays a useful purpose in science, but it is not designed to detect fraud and rarely does so.

Many, perhaps most, cases of fraud come to light because someone in the perpetrator's laboratory, someone in a position to observe his behavior and see the raw data, gets uncomfortable enough to blow the whistle. The front line of defense against fraud is not methodological but personal. The lab chief is in the best position to detect fraud. Only he can demand to see the lab notebooks, evidence that is beyond the reach of outsiders.

Science, by this analysis, is institutionally vulnerable to fraud. Its quality control mechanisms do not prevent fraud, yet as each new case bursts into public view, scientists find themselves put in the generally false position of declaring that there is no need to worry, because the quality control mechanisms of science infallibly detect fraud.

A more direct answer would be that research is not a process that can be made efficient. There is an inevitable degree of waste in the system, and fraud is generally not a serious enough problem to justify any measure that would cost significant time or money. However, it has not proved to be a popular response to go before Congress or the news cameras and declare, "Fraud happens—forget about it."

There's a strong case for viewing the prevention of fraud as the direct responsibility of the lab chief. If the people he or she has hired are disturbed enough to cook data, the lab chief should get to know about it. If the lab chief puts his name on the concoction, intending to draw credit for it, he deserves a big share of the blowback. But at present every fraud case seems to end the same way. The perpetrator disappears from view, slinking off to become a pathologist in a Midwestern hospital. And the lab chief receives the commiseration of his pals for the unfortunate occurrence that fate visited on him.

--- *Adapted from: the scientist.com*

Questions 1 – 5

Complete the summary below.

Choose your answers from the list below the summary.

NB *There are more words than spaces, so you will not use them all.*

Scientific fraud has been brought to the spotlight recently, as some practitioners ... [1] ... the standard research methodology and forge experiment results. These ... [2] ... results cannot last forever because science is ... [3] ..., in which the later experiments are built on the results of the former ones. To prevent fraud, refereeing and replication, as the usual checking mechanisms of science, ... [4] ... usefully, but not effectively. But ... [5] ... can play an important role in the front line of defense against fraud.

List of Words

the lab chief   function   working
accurate   concoctive   use   perpetrators
a cumulative process   abandon   design

IELTS 大虾必备

fraud	[frɔ:d] *n.* 欺骗（行为）
perpetration	[ˌpə:piˈtreiʃən] *n.* 犯（罪行、错误等）、施行（欺骗、谋杀等） （相关词形变化 perpetrate *v.* --- perpetrator *n.*）
opus	[ˈəupəs] *n.* 大作、杰作、主要作品
suspicious	[səsˈpiʃəs] *adj.* 怀疑的、可疑的 （动词形式：suspect）
identical	[aiˈdentikəl] *adj.* 同样的、完全相同的
convene	[kənˈvi:n] *vt.* 集合、召集（组织人员等）开会
panel	[ˈpænl] *n.* （由选定人员组成的）专门小组、评定小组
misconduct	[misˈkɔndəkt] *n.* 不端行为、不法行为 （很明显 mis-conduct 指的是"行为 conduct"上的错误举动。）
sack	[sæk] *vt.* 解雇
perspective	[pə:ˈspektiv] *n.* （观察问题的）视角、观点
forsake	[fəˈseik] *vt.* 放弃、抛弃
fabrication	[ˌfæbriˈkeiʃən] *n.* 捏造、伪造 （动词形式：fabricate）
referee	[refəˈri:] *vi.* 审阅、坚定
throng	[θrɔŋ] *vt.* 在…群集、使拥塞
frailty	[ˈfreilti] *n.* 脆弱、品德上的弱点 （形容词形式：frail。英国大文豪莎士比亚 Shakespeare 名言"弱者，你的名字是女人！"其英语原文为"Frailty, thy name is woman." thy 相当于现代英语中的代词 your。）
indefinitely	[inˈdefinitli] *adv.* 无定限地、无限期地 （相关单词：indefinite *adj.* --- definite *adj.*）
duplication	[ˌdju:pliˈkeiʃən] *n.* 复制、重复 （动词形式：duplicate）
repudiate	[riˈpju:dieit] *vt.* 驳斥、批驳 （名词形式：repudiation）
vulnerable	[ˈvʌlnərəb(ə)l] *adj.* 易受诱惑的、易受…影响的 （名词形式：vulnerability）
infallibly	[inˈfælibli] *adv.* 绝对无误地 （相关单词：infallible *adj.* --- fallible *adj.* --- fallibility *n.*）
inevitable	[inˈevitəbl] *adj.* 不可避免的、必然的
justify	[ˈdʒʌstifai] *vt.* 证明…正当/正确 （just 是形容词，表示"正义的、正直的"，后边加上 ify 变成动词。体会下边一句话的含义：Ends justify means. —— 只要能达成目的，一切手段都是正确的。即"为达到目的可以不择手段"。）
Congress	[ˈkɔŋgres] *n.* （美国等国的）国会、议会 （con-gress 表示"共同 / 一起 + 行走"，一群人走到一起去开会、去吵架，这样构成了国会。为什么 progress 表示"进步"? pro-gress，字面意思就是"往前走"。 还有几个典型的表示国会的单词，Parliament [英国等国]，Knesset [以色列等]，Diet [日本、瑞士等]。）

cook	[kuk] *vt.* 篡改（数据、帐目等）
commiseration	[kəˌmizəˈreiʃən] *n.* 同情、怜悯、慰问（动词形式：commiserate）

重点词汇回顾 + 同义词扩充

fraud --- deceit, deception, dishonesty, cheating
perpetration --- commission, execution
misconduct --- misbehaviour, delinquency, wrongdoing
sack --- give somebody notice, fire, dismiss, discharge
forsake --- abandon, desert, discard, throw away
fabrication --- forgery, fiction, falsehood, invention
throng --- crowd, pack, cram, flock, jam
frailty --- feebleness, fragility, flaw, weakness
repudiate --- renounce, rebut, deny
vulnerable --- susceptible, helpless, defenseless, exposed
inevitable --- unavoidable, foreseeable, predictable, inescapable
justify --- validate, substantiate, vindicate

Exercise 2

Volcano



A volcano is any kind of natural opening, or fissure, in the Earth's crust through which hot molten rock (called lava), ash, steam, gas and other material is spewed. The heat comes from within the Earth's mantle. The word volcano is also used to describe the cone of lava and ash that builds up around the opening. The shape depends on the type of eruption. Volcanic activity may take place under the sea as well as on land, and sometimes creates new land. Sometimes a volcano may explode very violently, emptying the lava chamber that feeds it. The roof and walls may then collapse, leaving a hole called a caldera. A geyser is an opening in the Earth from which, from time to time, a fountain of boiling water shoots high in to the air. A fumarole is a volcanic opening from which only gas and steam are released.

So what causes a volcano to erupt and how do scientists predict eruptions? When a part of the earth's upper mantle or lower crust melts, magma forms. A volcano is essentially an opening or a vent through which this magma and the dissolved gases it contains are discharged. Although there are several factors triggering a volcanic eruption, three predominate: the buoyancy of the magma, the pressure from the exsolved gases in the magma and the injection of a new batch of magma into an already filled magma chamber.

As rock inside the earth melts, its mass remains the same while its volume increases—producing a melt that is less dense than the surrounding rock. This lighter magma then rises toward the surface by virtue of its buoyancy. If the density of the magma between the zone of its generation and the surface is less than that of the surrounding and overlying rocks, the magma reaches the surface and erupts.

Magmas of so-called andesitic and rhyolitic compositions also contain dissolved volatiles such as water, sulfur dioxide and carbon dioxide. Experiments have shown that the amount of a dissolved gas in magma (its solubility) at atmospheric pressure is zero, but rises with increasing pressure.

For example, in an andesitic magma saturated with water and six kilometers below



the surface, about 5 percent of its weight is dissolved water. As this magma moves toward the surface, the solubility of the water in the magma decreases, and so the excess water separates from the magma in the form of bubbles. As the magma moves closer to the surface, more and more water exsolves from the magma, thereby increasing the gas/magma ratio in the conduit. When the volume of bubbles reaches about 75 percent, the magma disintegrates to pyroclasts (partially molten and solid fragments) and erupts explosively.

The third process that causes volcanic eruptions is an injection of new magma into a chamber that is already filled with magma of similar or different composition. This injection forces some of the magma in the chamber to move up in the conduit and erupt at the surface.

Although volcanologists are well aware of these three processes, they cannot yet predict a volcanic eruption. But they have made significant advances in forecasting volcanic eruptions. Forecasting involves probable character and time of an eruption in a monitored volcano. The character of an eruption is based on the prehistoric and historic record of the volcano in question and its volcanic products. For example, a violently erupting volcano that has produced ash fall, ash flow and volcanic mudflows (or lahars) is likely to do the same in the future.

Determining the timing of an eruption in a monitored volcano depends on measuring a number of parameters, including, but not limited to, seismic activity at the volcano (especially depth and frequency of volcanic earthquakes), ground deformations (determined using a tiltmeter and/or GPS, and satellite interferometry), and gas emissions (sampling the amount of sulfur dioxide gas emitted by correlation spectrometer, or COSPEC). An excellent example of successful forecasting occurred in 1991. Volcanologists from the U.S. Geological Survey accurately predicted the June 15 eruption of the Pinatubo Volcano in the Philippines, allowing for the timely evacuation of the Clark Air Base and saving thousands of lives.

--- Adapted from: Scientific Amercia.com;
Bob Abram, Denver, CO, on November 29, 1999

Questions 1 – 9

Complete the summary below.

Choose your answers from the list below the summary.

NB *There are more words than spaces, so you will not use them all.*

In essence, a volcano is an opening or a vent through which … [1] … is discharged. There are three … [2] … for a volcano eruption. The less … [3] … magma could reach the surface by … [4] … and erupt. Also, … [5] … in magmas could be accountable. For instance, as the magma moves up to the surface, … [6] … of water in it reduces, and the excess water becomes … [7] … mixed with the magma. When the volume of the magma decreases to about … [8] …, the eruption occurs. Moreover, an injection of new magma into … [9] …could cause an eruption.

List of Words		
A predominate	G 75 percent	M bubbles
B magma and gases	H virtue	N dissolved water
C a filled chamber	I its buoyancy	O 50 percent
D factors	J main triggers	P dense
E andesitic	K rhyolitic	Q a quarter
F lighter	L the solubility	R the magma

IELTS 大虾必备

volcano	[vɔl'keinəu] *n.* 火山 （相关单词：volcanic *adj.* --- volcanologist *n.* 火山学家）
fissure	['fiʃə] *n.* 裂缝、裂沟
eruption	[i'rʌpʃən] *n.* 爆发 （动词形式：erupt）
essentially	[i'senʃəli] *adv.* 本质地、基本地 （相关单词：essential *adj.* --- essence *n.* 本质、精华）
dissolve	[di'zɔlv] *vt.* 溶解、解散
trigger	['trigə] *vt.* 引起、发动 （这个单词作为名词的基本含义是"扣动的扳机"，因此用作动词时有"一触即发"的含义。）
predominate	[pri'dɔmineit] *vi.* 占主导地位 （相关单词：predominant *adj.* --- predominating *adj.* --- predomination *n.*）
buoyancy	['bɔiənsi] *n.* 浮力；（物体在液体中的）失重 （形容词形式：buoyant）
exsolve	['eksɔlv] *vt.* 脱溶 （来自名词 exsolution "脱溶"）
injection	[in'dʒekʃən] *n.* 注射、引入 （动词形式：inject）
generation	[dʒenə'reiʃən] *n.* 产生、发生
overlying	[ˌəuvə'laiiŋ] *adj.* 覆在…上面的 （由 overlie 这个动词的现在分词形式转变而来的形容词。）
composition	[ˌkɔmpə'ziʃən] *n.* 组成、构成 （动词形式：compose）
solubility	[ˌsɔlju'biliti] *n.* （可）溶性、溶（解）性 （形容词形式：soluble，insoluble 是其对应的反义词，因此"不可溶性"即为 insolubility。）
saturate	['sætʃəreit] *vt.* 浸透、渗透；使饱和 （名词形式：saturation）
bubble	['bʌbl] *n.* 气泡、泡沫 （"泡沫经济"就是 bubble economy。）
disintegrate	[dis'intigreit] *vi.* 分裂、碎裂 （显然是 integrate 的反义词。它的名词形式是 disintegration，例如 disintegration of the former Soviet Union 即表示"前苏联的解体"。）
forecast	['fɔ:ka:st] *vt.* 预测、预报
parameter	[pə'ræmitə] *n.* 参量、参数
seismic	['saizmik] *adj.* 地震的
frequency	['fri:kwənsi] *n.* 频率 （形容词形式 frequent 表示"频繁的"。）

deformation [ˌdiːfɔːˈmeiʃən] *n.* 变形
(相应词形变化：deform *v.* --- deformed *adj.* --- deformity *n.* 畸形、残废)
(从词的构成来看，无论是形容词 deformed 还是名词 deformity，其基本含义都是"身体[体形]变形"，所以用来指残疾人都不太合适。比较委婉的说法是用 the handicapped 或 handicapped people 来指"残疾人"。handicapped 这个形容词来自 handicap，简单地说就是 hand in cap，指古罗马人赌博时一手放进帽子里行动不便，进而引申而来的"身体行动不便"；或者也可以用 disabled "使没有[生活]能力的"，进而引申为"残疾的"。这样的说法一般不带有 offensive 的语体色彩。)

emission [iˈmiʃən] *n.* (光、热、气等的) 散发、喷射
(动词形式：emit)

evacuation [iˌvækjuˈeiʃən] *n.* 撤退、疏散
(动词形式：evacuate)

重点词汇回顾 + 同义词扩充

fissure --- crack, crevice, cleft, split, opening(文章中提供的同义词)
eruption --- outbreak, outburst, explosion, discharge, emission
essentially --- in essence, fundamentally, principally
dissolve --- liquefy, disappear, evaporate, vanish
trigger --- activate, set off, generate, produce
predominate --- prevail, dominate, outweigh, preponderate
injection --- insertion, infusion, instillation, addition
generation --- production, invention, creation, origination
composition --- constitution, makeup, component
saturate --- soak, drench, marinate, steep
disintegrate --- collapse, fragment, split, break
forecast --- foretell, predict, project, anticipate
deformation --- distortion, twist, disfigurement
emission --- release, discharge, emanation
evacuation --- removal, withdrawal, emptying, retreat, exodus

Exercise 3

Ancient Money



Money as a medium of exchange in barter and trade has always in all times found expression in some form or other from necessity thereof. In the remotest periods, before gold or silver were generally in use, it took the form of animals, oxen, sheep, lambs, shells, etc. Thus people find used cattle in Germany, leather in Rome, sugar in the West Indies, shells in Siam, lead in Burmah, platinum in Russia, tin in Great Britain, iron and nails in Scotland, brass in China, and finally copper, silver and gold the world over.

Gold and silver originally being in lumps, nuggets and bars, were in this manner weighed out in the making of payments for commercial transactions, but there being no certainty of the purity of the metal, no convenience in size, the lumps being too large, necessity arose for smaller amounts and divisions, which were gradually made, vouched for, and a die stamp invented which was punched by hand on one side of the smaller lumps of gold and silver, thereby attesting to its purity and value, and so originated the first acts of coinage, which is generally attributed far back in ancient history to Lydia, a country in Asia Minor, celebrated for its mineral wealth and gold, where probably the first gold states were thus stamped with the symbol of a lion pressed on one side of the coin. Silver was first coined in these crude lumps on the island of Aegina, where the ancient Greeks stamped a turtle on their first silver coins over 700 years before the Christian era.

The actual coinage of money now being an accomplished and accepted fact, it was furthered along by the Greek nations, who, after stamping thereon turtles, owls, images and other objects of their divinity, finally with Alexander the Great, began to impress upon their coins crude portraits or heads of living persons and rulers. This method was kept up and improved upon by the Romans, who became proficient in the art, in consequence of which today an immense number of Roman coins and silver Denarii, were preserved for centuries.

After the decline and fall of the Roman empire, the coinage of money from an artistic standpoint began to deteriorate, and from the Byzantine period, money became crude in form and expression, unequal in shape or value, lacking design and execution. The early English Kings coined pennies, but they are crude and uncertain. William the Conqueror, in 1066, issued fair specimens of pennies, and Edward I, in 1280, issued a new coinage of pennies, half pence and farthings, but it re-

mained for Queen Elizabeth of England to set a step forward when she introduced the first experiment of milling money, instead of hammering, and also the establishment in 1600 of a Colonial silver currency for use of the East Indian Company. After this period coins began to get more of an even roundness and shape, and all the large pieces, such as silver dollars or crowns, show again the gradual improvement and symmetry in the artistic work of coinage.

The Chinese assert a coinage for forty centuries, and seem to have an organization all of their own, being different from those of all other countries, yet created through the same necessity of having some metal of a certain value to use as a medium of exchange in trade. This metal, mostly of bronze, finally developed into the familiar round brass coin, with a square hole in the centre called cash, which has been in use for centuries, the peculiar hieroglyphics thereon being generally the emperor's name, authority, and the value, which no doubt enables a Chinese scholar to trace back their rulers by this method as one did on the Roman and other coins. They also made use of porcelain and small seashells. The coins of Japan issued some of copper, and Korea an alloy of both. The holes in these Chinese coins and in almost all coins of Asiatic countries, came from the need of stringing them like beads for preservation, as the Chinese and Hindu had no pockets in the clothes they wore at that time.

The first money used in America was furnished chiefly by Great Britain and Spain, but the limited amount, scarcity, and need of it, tempted the colony of Massachusetts to create a small mint in this country, which they did in 1652, where they struck some silver pieces which are known as Oak or Pine Tree money, and are quite rare, being the first coins of American origin.

During and after the American war for independence, various coins were struck by private individuals and by orders of Congress. The state coinage of copper cents began with New Hampshire, 1776; Vermont and Connecticut, 1785; New Jersey, 1786; New York, 1787; followed by others until April 2nd, 1792, when President Washington signed a law to establish a United States mint, which went into effect at once. On September 1st the first six pounds of copper were bought for coinage. On September 21st, three coinage presses arrived from Europe and early in October 1792, the first half dimes and a few copper cents patterns were struck by the new United States mint. In 1793 the regular issue of copper cents began, which first appeared in a number of different styles, such as wreath, link, liberty cap, etc. In 1794 the first dollar, half dollar and half dime were struck, in 1796 the first quarter and dime, in 1873 the first trade dollar. Gold coins were also issued by private parties as early as 1834. The study of ancient coins is one of the most interesting historic as well as artistic subjects. Some coins are today the only record extant of important events in the world's history and the existence of cities and nations long since gone forever.

--- Adapted from: crystalworld.co.uk/amazinginfo

Questions 1 – 8

Complete the summary below.

*Choose **NO MORE THAN THREE WORDS** from the passage for each answer.*

In the beginning of money usage, people … [1] … crude lumps of gold and silver to make payments in trade transactions. Later, … [2] … amounts and portions were made and a die stamp was used to … [3] … the purity and value. That is how coinage originated. It is generally believed that gold was first coined in … [4] …, and silver on the island of Aegina. The techniques of coinage were promoted by … [5] …, and then Roman. But as the Roman Empire fell, the coin lost its … [6] … value and became crude again. Until Queen Elizabeth of England introduced the first experiment of milling money, the … [7] … and … [8] … of coinage work revived.

IELTS 大虾必备

exchange	[iks'tʃeindʒ] *n.* 交换、交易
barter	['ba:tə] *n.* 交换、以物易物的交换
oxen	['ɔksən] *n.* [ox 的复数] 牛、公牛
originally	[ə'ridʒənəli] *adv.* 最初、原先 （相应词形变化：origin *n.* --- originate *v.* [下文有出现]）
lump	[lʌmp] *n.* 块团形状、不规则的块或团
transaction	[træn'zækʃən] *n.* 交易、业务
vouch for	担保、保证
punch	[pʌntʃ] *vt.* 用力打进 （除此之外，punch 还有一个含义使用频率很高，作动词表示"用拳猛击"，例如 You should have punched him!"你就应该给他一拳！"）
attest to	证明、证实
coinage	['kɔinidʒ] *n.* 铸币、造币
celebrated	['selibreitid] *adj.* 著名的 （celebrate 作动词表示"祝贺、赞美"，无论走到哪里都受到人们的祝贺，听到别人的赞美之辞，此人必定了得，名气不小！）
crude	[kru:d] *adj.* 天然的、未经加工的 （名词形式：crudity；典型搭配——crude oil 表示"原油"。）
owl	[aul] *n.* 猫头鹰 （晚上特别能熬夜的人中文里把他们称为"夜猫子"，对应的英语也差不多是这个意思——night owl，那与之相反，晚上不熬夜，早晨起来精神饱满的人一般被形容为 fresh daisy，来自短语 as fresh as a daisy in the morning。）
divinity	[di'viniti] *n.* 神、神威 （形容词形式：divine）
proficient	[prə'fiʃənt] *adj.* 熟练的、精通的 （名词形式：proficiency）
in consequence of	由于…的缘故
immense	[i'mens] *adj.* 巨大的、无边的 （名词形式：immensity）
decline	[di'klain] *n.* 下倾、下降、衰败、衰落 （这个单词的第一个释义就是它的基本含义，即 de-cline 对应"下＋倾"。）
deteriorate	[di'tiəriəreit] *vi.* 恶化、变糟 （名词形式：deterioration）
issue	['iʃu:] *vt.* 发行（钞票等）
specimen	['spesimin] *n.* 样品、样本
hammer	['hæmə] *v.* 用锤敲打 （作名词表示"锤子"，这里活用作动词。）
colonial	[kə'ləuniəl] *adj.* 殖民（地）的 （相应词形变化：colony *n.* --- colonize *v.* --- colonization *n.*）

symmetry	['simitri] *n.* 对称、相称 （形容词形式：symmetrical）
porcelain	['pɔ:slin] *n.* 瓷器、瓷
alloy	['ælɔi] *n.* 合金，混合
string	[striŋ] *vt.* 串起… （作名词表示"一串儿…"，例如 a string of beads。）
bead	[bi:d] *n.* 珠子 （形容词形式：beady，经常用于形容人的眼睛，那么什么样的眼睛才是 beady eyes 呢？第一、不大；第二，圆；第三、闪亮动人。）
scarcity	['skeəsiti] *n.* 缺乏、不足 （形容词形式：scarce）

重点词汇回顾 + 同义词扩充

exchange --- trade, swap, barter
originally --- initially, primarily, at the outset
celebrated --- famous, renowned, eminent, distinguished
crude --- raw, unrefined, unpolished, unprocessed
proficient --- capable, skilled, adept, competent
immense --- vast, enormous, gigantic, colossal, immeasurable
decline --- deterioration, fall, drop, decay, degeneration
symmetry --- balance, evenness, equilibrium, regularity
scarcity --- lack, shortage, paucity, insufficiency

Exercise 4

Rhythms of Nature

There are several following rhythms in nature: day-night's rhythm, tidal rhythm and seasonal rhythm. The three rhythms can be seen. Besides them, there is still a rhythm that can't be seen — gravitational rhythm.

The earth turns around its axis and forms day and night in turn. It can cause natural factors on the earth's surface — light and temperature — day-night's change. The change is periodical and rhythmical. It is called day-night's rhythm of nature. Animal's activities and its circadian function both touch with day-night's change on the earth, and yet repeat to appear partitioning off 24 hours. It is called day-night's biorhythm of animal. Some animals do activities at night and rest at daytime, for example, owl, vole, roach, bat, etc. Some animals do activities at daytime and rest at night, for example, chicken, duck, pig, bee, etc. Day-night's biorhythm of animal is controlled by biological clock in its body. The conclusion has been verified by scientists.

A lot of scientists discovered by a large number of tests that Mammalia's biological clock which shows day-night's biorhythm is located in a cerebral region called SCN. Scientists have separated four genes which affect the biological clock from SCN cell. They are respectively called per gene, tim gene, clock gene and cycle gene. The four genes and their proteins make up a core of day-night's biological clock. And yet by some improvement, they seem to form a day-night's biorhythmical system which controls the whole animals' circle — from fish to frog and from mouse to human.

Scientists did an interesting test for roaches in order to setting biological clock of animal back or forward. Roach is an insect which rests at daytime and works at night. It is the activest at nightfall. Scientists put some roaches into a test room and reversed artificially the order of day and night in the test room. About past a week, the roaches just worked in the artificial "dark night" time even though it was a daytime in fact. It shows that biological clock of the roaches had been adjusted for 12 hours. This test demonstrates that bright-dark rhythm of daylight can affect heavily day-night's rhythmical action of animal.

Tidal phenomenon means that tide comes in or goes out by a regular way. Every tide always comes later 50 minutes than last one. Namely, the cycle of tidal rhythm is 24 hours 50 minutes. The rule is just called the tidal rhythm of nature.

There is a sort of small crab in seabeach. It has been living in a tidal environment. It need avoid tidal strike for life. By training and adaptation for a long time, it gradually follows the tidal rule. It usually gets out of its hole for finding food after every tide just goes out. It always gets into its hole 10 minutes in advance when next tide comes in again. It's just later 50 minutes than last day when the small crab gets into its hole everyday. The active rule of the small crab is just identical with tidal rhythm. If these small crabs are transferred to environment without



tide from seabeach, then they still display the active rule which is identical with the tidal rhythm. This demonstrates that there is a biological clock reflecting the tidal rhythm in the small crab's body. We call it tidal biological clock. But biological clock need be controlled by clock gene. So, there must be a sort of gene which controls the tidal biological clock in the small crab's body.

It can form the seasonal changes of spring, summer, autumn and winter when the earth moves a circle around the sun. Each change is periodical and rhythmical, which is called seasonal rhythm of nature. Some animals can form a rhythmical action with the seasonal changes, for example, birds' migration, the hibernation of snake or frog, etc, and that is seasonal biorhythm of animal.

A lot of birds have a custom which changes their lives' area with the seasonal changes. It's birds' migratory action. Birds' migration usually comes twice a year. Some birds fly to north's breeding area from south in every spring, for example, swallow, cuckoo, etc. They fly again to south for hibernating from the north's breeding area when autumn comes in. These birds come in spring and go in autumn, so we call them summer migratory bird. Some birds are just opposite to the summer migratory bird at birds' migration, for example, swan, swan goose, red-crowed crane, etc. They come to south for hibernating from north in every autumn, and fly back to north's breeding area when next spring comes in. As for birds, their migratory time in each year is seldom changed.

Some animals can get into hibernation as soon as winter comes in, for example, frog, snake, bat, hedgehog, etc. Animal's hibernation is a seasonal rhythmical action. It is called hibernant biorhythm of animal. Being similar with day-night's biorhythm of animal or tidal biorhythm of the small crab, hibernant biorhythm of animal should be also controlled by clock-gene in its body.

There is a rhythm which man can not see in nature. It's just gravitational rhythm, which is caused by relative movements between the earth and any of other celestial bodies. All of matters in nature are attracted by the gravitation from the moon. So, gravitational rhythm from the moon should belong to a natural rhythm. Can it directly touch with the lives' activities of human or other animals? The obvious answer is woman's menstrual rhythm.

The cycle of woman's menstruation is about a month. So it belongs to a biorhythm that need originate in natural rhythm. Since woman's menstruation belongs to a biorhythm, then it need originate in natural rhythm, too. There are four sorts of natural rhythms in nature: day-night's rhythm, tidal rhythm, seasonal rhythm and gravitational one. The cycle of the day-night's rhythm is a day. The cycle of the tidal rhythm is 24 hours 50 minutes. The cycle of the seasonal rhythm is a year. All of them don't conform to the cycle of woman's menstruation — one month. So, woman's menstrual rhythm can't originate in any of them. In other way, the cycle of gravitational rhythm from the moon is about one month. So only it conforms to woman's menstrual rhythm in the natural rhythms.

--- Adapted from : BIOLOGICAL CLOCK TICKS.
Michael W. Young in Scientific
American, Vol. 282; Periodical 3, 2000

Questions 1 – 17

Complete the summary below.

Choose ***NO MORE THAN THREE WORDS*** *from the passage for each answer.*

There are four rhythms in nature: day-night's, tidal, seasonal and gravitational. They are respectively associated with … [1] …of animals and human beings.

Scientists believe that animal's … [2] …, which controls its day-night's biorhythm, mainly consists of … [3] … and … [4] … from SCN cell, and it can be set backward or forward. Roach is the touchstone in this regard. These nocturnal insects were put into a test room where a … [5] … of day and night was created. Gradually, they had … [6] … their rhythmical action and worked in the … [7] … night.

The active rule of a small crab is … [8] … with tidal rhythm. To avoid … [9] …, the crab goes out for food after every tide and comes back with every tide.

Seasonal rhythm of nature is … [10] … and … [11] … changes of the four seasons. Accordingly, birds … [12] …usually twice a year and the snake … [13] … in winter.

Gravitational rhythm is an … [14] … rhythm in nature, caused by relative movements among … [15] …. It directly touches human lives. A woman's … [16] … is about one month, the cycle of gravitational rhythm from the … [17] ….

IELTS 大虾必备

rhythm	['riðəm] *n.* 节奏、韵律 （整个单词里只有一个元音字母 y，要注意它的读音。目前较流行的音乐曲风 R&B 指的就是 Rhythm and Blues，即“节奏布鲁斯”；其形容词形式为 rhythmical。）
tidal	['taidl] *adj.* 潮汐的、受潮水影响的 （名词形式：tide。俗语“岁月不等人”—— Time and tide wait for no man。这里的主语 time and tide 押头韵 t，读起来琅琅上口。）
gravitational	[ˌgrævi'teiʃənəl] *adj.* 重力的 （相关词形变化 gravitation *n.* --- gravitate *v.* --- gravity *n.*）
function	['fʌŋkʃən] *n.* 功能、官能
partition	[pɑ:'tiʃən] *vt.* 分割、分开、瓜分 （将一个整体分成一个一个的 part，就得到了 partition。）
biorhythm	[ˌbaiəu'riðəm] *n.* 生物节奏/节律 （前边刚刚遇到“节奏”，很显然这里的前三个字母 bio 表示“生物、生物体”。biology 是生物学，biography 是传记。）
verify	['verifai] *vt.* 核实、查证 （名词形式：verification）
cerebral	['seribrəl] *adj.* 大脑的
gene	[dʒi:n] *n.* 基因 （形容词形式：genetic）
respectively	[ris'pektivli] *adv.* 分别地、各个地 （形容词形式：respective）
reverse	[ri'və:s] *vt.* 颠倒、倒转 （名词形式：reversion）
namely	['neimli] *adv.* 即、也就是
transfer	[træns'fə:] *vt.* 转移、移动 （名词形式：transference）
migration	[mai'greiʃən] *n.* 迁移、移动 （前边提到过这个单词，其动词形式为 migrate。）
hibernation	[ˌhaibə'neiʃən] *n.* 冬眠 （动词形式：hibernate）
breed	[bri:d] *vt.* 繁殖
menstrual	['menstruəl] *adj.* 【生理】月经的 （名词形式：menstruation）
conform to	符合、遵照

重点词汇回顾 + 同义词扩充

rhythm --- tempo, cadence, beat
partition --- divide, subdivide, separate, segregate
verify --- authenticate, confirm, validate, substantiate, attest

respectively --- individually, singly, separately
reverse --- move backward, retreat, withdraw
namely --- that is to say, viz., specifically, explicitly
transfer --- move, transmit, convey, shift
migration --- immigration, movement, relocation, resettlement
breed --- reproduce, procreate, propagate, multiply



Exercise 5

The Lost Continent



A continent the size of Europe, boasting beautiful cities, advanced technology and utopian government... subjected to a great cataclysm and reduced to rubble that sank beneath the sea, lost forever. The legend of Atlantis has been around for thousands of years, and whatever its factual validity may be, it can truthfully claim a noble heritage: its earliest proponent was Plato.

The Greek philosopher wrote of *Atlantis* in two of his dialogues, *Timaeus* and *Critias*, around 370 B.C. Plato explained that this story, which he claimed to be true, came from then-200-year-old records of the Greek ruler Solon, who heard of Atlantis from an Egyptian priest. Plato said that the continent lay in the Atlantic Ocean near the Straits of Gibraltar until its destruction 10,000 years previous.

In *Timaeus*, Plato described Atlantis as a prosperous nation out to expand its domain: "Now in this island of Atlantis there was a great and wonderful empire which had rule over the whole island and several others, and over parts of the continent," he wrote, "and, furthermore, the men of Atlantis had subjected the parts of Libya within the columns of Heracles as far as Egypt, and of Europe as far as Tyrrhenia."

Plato goes on to tell how the Atlanteans made a grave mistake by seeking to conquer Greece. They could not withstand the Greeks' military might, and following their defeat, a natural disaster sealed their fate. *Timaeus* continues: "But afterwards there occurred violent earthquakes and floods; and in a single day and night of misfortune all your warlike men in a body sank into the earth, and the island of Atlantis in like manner disappeared in the depths of the sea."

Interestingly, Plato tells a more metaphysical version of the Atlantis story in *Critias*. There he describes the lost continent as the kingdom of Poseidon, the god of the sea. This Atlantis was a noble, sophisticated society that reigned in peace for centuries, until its people became complacent and greedy. Angered by their fall from grace, Zeus chose to punish them by destroying Atlantis.

Although Plato was the first to use the term "Atlantis", there are antecedents to the legend. There is an Egyptian legend which Solon probably heard while traveling in Egypt, and was passed down to Plato years later. The island nation of Keftiu, home of one of the four pillars that held up the sky, was said to be a glorious advanced civilization which was destroyed and sank beneath the ocean.

More significantly, there is another Atlantis-like story that was closer to Plato's world, in terms of time and geography... and it is based in fact. The Minoan Civilization was a great and peaceful culture based on the island of Crete, which reigned as long ago as 2200 B.C. The Minoan island of Santorini, later known as Thera, was home to a huge volcano. In 1470 B.C., it erupted with a force estimated to be greater than Krakatoa, obliterating everything on Santorini's surface. The resulting earthquakes and tsunamis devastated the rest of the Minoan Civilization, whose remnants were easily conquered by Greek forces.

Perhaps Santorini was the "real" Atlantis. Some have argued against this idea, noting Plato specified that Atlantis sank 10,000 years ago, but the Minoan disaster had taken place only 1,000 years earlier. Still, it could be that translation errors over the centuries altered what Plato really wrote, or maybe he was intentionally blurring the historical facts to suit his purposes. And there exists yet another strong possibility: that Plato entirely made Atlantis up himself.

Regardless, his story of the sunken continent went on to captivate the generations that followed. Other Greek thinkers, such as Aristotle and Pliny, disputed the existence of Atlantis, while Plutarch and Herodotus wrote of it as historical fact. Atlantis became entrenched in folklore all around the world, charted on ocean maps and sought by explorers.

In 1882, Ignatius Donnelly, a U.S. congressman from Minnesota, brought the legend into the American consciousness with his book, *Atlantis: The Antediluvian World*. In more recent years, the psychic Edgar Cayce (1877–1945) became the U.S.'s most prominent advocate of a factual Atlantis. Widely known as "The Sleeping Prophet", Cayce claimed the ability to see the future and to communicate with long-dead spirits from the past. He identified hundreds of people — including himself — as reincarnated Atlanteans.

Cayce said that Atlantis had been situated near the Bermuda island of Bimini. He believed that Atlanteans possessed remarkable technologies, including supremely powerful "fire-crystals" which they harnessed for energy. A disaster in which the fire-crystals went out of control was responsible for Atlantis's sinking, he said, in what sounds very much like a cautionary fable on the dangers of nuclear power. Remaining active beneath the ocean waves, damaged fire-crystals send out energy fields that interfere with passing ships and aircraft — which is how Cayce accounted for the Bermuda Triangle.

Cayce prophesied that part of Atlantis would rise again to the surface in "1968 or 1969." It didn't, and no one has yet found hard evidence that it was ever there. With sonar tracing and modern knowledge of plate tectonics, it appears impossible that a mid-Atlantic continent could have once existed. Still, many argue that there must have been an Atlantis, because of the many cultural similarities on either side of the ocean which could not have developed independently, making Atlantis quite literally a "missing link" — the topographical equivalent of Bigfoot.

--- Adapted from: the publications of ParaScope, Inc

Questions 1 – 10

Complete the summary below.

*Choose **NO MORE THAN THREE WORDS** from the passage for each answer.*

The story of Atlantis originated from … [1] … , and then passed down to the … [2] … , from whom the Greek philosopher, Plato, procured the records and described them in two of his dialogues. In *Timaeus*, Plato depicted Atlantis as a great empire, to which the parts of Libya and Tyrrhenia had been … [3] … . But the Greek army defeated Atlanteans, and some … [4] … such as violent earthquakes and floods, followed. The island finally vanished in the sea. However, *Critias* has another version. Plato ascribed the destruction of the continent to Atlanteans' … [5] … and … [6] … , which incurred punishment from the Greek God. No matter what the truth is, the sunken Atlantis kept mesmerizing people generation after generation. More recently, Edgar Cayce, a psychic of the US, even claimed that Atlanteans … [7] … high technologies, including … [8] … the powerful energy source, much like today's … [9] … . But there is no hard evidence. Still, many believed the existence of the lost continent, on the basis of the … [10] … on both sides of the ocean.

IELTS 大虾必备

boast	[bəust] *vt.* 有…可以夸耀
subject	[sʌb'dʒekt] *vt.* [与 to 连用] 经历、遭受
cataclysm	['kætəklizəm] *n.* 灾难、大洪水
legend	['ledʒənd] *n.* 传说、传奇 (形容词形式：legendary)
validity	[və'liditi] *n.* 有效性、正确性 (相应词形变化：valid *adj.* --- validate *v.*)
proponent	[prə'prəunənt] *n.* 支持者、倡导者 (前三个字母 pro 表示“支持”，反义词是 op-ponent——opponent。)
philosopher	[fi'lɔsəfə] *n.* 哲学家 (相应词形变化：philosophy *n.* 哲学 --- philosophical *adj.* 哲学的)
priest	[pri:st] *n.* 牧师
prosperous	['prɔspərəs] *adj.* 繁荣的 (相应词形变化：prosper *v.* --- prosperity *n.*)
grave	[greiv] *adj.* 严重的、重大的 (名词形式：gravity)
withstand	[wið'stænd] *vt.* 抵挡、经受住
might	[mait] *n.* 力量、威力 (形容词形式：mighty)
disaster	[di'zɑ:stə] *n.* 灾难、灾祸 (dis-aster 表示“否定意义＋星星”，古罗马人相信人的生活受天上星星位置的影响，这个单词字面意思为“星位不正”，那么必然有“灾祸、灾难”降临；还记得前文提到过的 astrology 吗？)
seal	[si:l] *vt.* 结束 (原意：密封、加封条)
sophisticated	[sə'fistikeitid] *adj.* 高度发展的、成熟完善的
greedy	['gri:di] *adj.* 贪婪的 (名词形式：greed，属于“七宗罪”Seven Deadly Sins 之一，其他六个为 Pride/Vanity Envy Gluttony Lust Anger/Wrath, and Sloth。)
antecedent	[,ænti'si:dənt] *n.* 先前的事情、前面的事件 (ante 表示“先”或者“前”。)
pillar	['pilə] *n.* 柱子、栋梁、重要的支持者
glorious	['glɔ:riəs] *adj.* 显赫的、光荣的 (名词形式：glory)
obliterate	[ə'blitəreit] *vt.* 删除、使淹没 (名词形式：obliteration)
devastate	['devəsteit] *vt.* 毁坏 (形容词形式：devastating；所谓 devastating beauty，其字面意思是“具有毁灭性的美丽”，其实说的就是某人的美貌“倾国倾城”。)

remnant	['remnənt] *n.* 剩余、残余
blur	[blə:] *vt.* 把…弄模糊、使界限不清
captivate	['kæptiveit] *vt.* （以某种感染力）吸引、迷住 （名词形式：captivation）
prophet	['prɔfit] *n.* 先知、预言者 （动词形式：prophesy）
supremely	[sju:'pri:mli] *adv.* 极度地、至高地 （形容词形式：supreme）
harness	['ha:nis] *vt.* 利用…使产生动力
nuclear	['nju:kliə] *adj.* 核的、原子能的 （几个具体搭配：核弹 nuclear bomb；核能 nuclear energy；核燃料 nuclear fuel；核反应堆 nuclear reactor。）

重点词汇回顾 + 同义词扩充

boast --- have, possess, pride oneself on, lay claim to
subject --- endanger, imperil, expose, lay open to
cataclysm --- catastrophe, disaster, calamity
validity --- legality, authenticity, authority, power, strength
proponent --- advocate, supporter, champion
grave --- serious, severe, momentous, crucial
withstand --- endure, survive, tolerate, weather
might --- power, force, potency
seal --- stick down, stop, close (up)
greedy --- avaricious, covetous, desirous, materialistic
obliterate --- destroy, demolish, wipe out, eliminate, eradicate, abolish
devastate --- ruin, wreck, ravage, destroy
remnant --- remainder, remains, residue, leftover
blur --- obscure, cloud, make indistinct, conceal, confuse
captivate --- attract, charm, fascinate, enchant, draw
prophet --- seer, forecaster, fortune teller, telepathist
supremely --- extremely, enormously, completely, superlatively
harness --- use, utilize, employ, exploit

TRUE/FALSE/NOT GIVEN

Exercise 1

Morse Code



Samuel Finley Breese Morse, inventor of several improvements to the telegraph, was born in Charlestown, Mass. on April 27, 1791. As a student at Yale College, Morse became interested in both painting and the developing subject of electricity. After his graduation in 1810, he first concentrated on painting, which he studied in England. He would later become a well-known portrait artist.

After moving to New York in 1825, he became a founder and the first president of the National Academy of Design. He also ran for office, but was defeated in both his campaigns to become New York mayor. Meanwhile, Morse maintained a steady interest in invention, taking out three patents for pumps in 1817 with his brother Sidney Edwards Morse. It wasn't until 1832 that he first became interested in telegraphy.

That year, Morse was traveling to the United States from Europe on a ship, when he overheard a conversation about electromagnetism that inspired his idea for an electric telegraph. Though he had little training in electricity, he realized that pulses of electrical current could convey information over wires. The telegraph, a device first proposed in 1753 and first built in 1774, was an impractical machine up until that point, requiring 26 separate wires, one for each letter of the alphabet. Around that time two German engineers had invented a five-wire model, but Morse wanted to be the first to reduce the number of wires to one.

Between 1832 and 1837 he developed a working model of an electric telegraph, using crude materials such as a home-made battery and old clockwork gears. He also acquired two partners to help him develop his telegraph:

Leonard Gale, a professor of science at New York University, and Alfred Vail, who made available his mechanical skills and his family's New Jersey iron works to help construct better telegraph models.

Morse's first telegraph device, unveiled in 1837, did use a one-wire system, which produced an EKG-like line on tickertape. The dips in the line had to be decoded into letters and numbers using a dictionary composed by Morse, this assuming that the pen or pencil wrote clearly, which did not always happen. By the following year he had developed an improved system, having created a dot-and-dash code that used different numbers to represent the letters of the English alphabet and the ten digits. (His assistant Vail has been credited by Franklin T. Pope — later a partner of Thomas Edison — with inventing this "dots and dashes" version). This coding system was significantly better, as it did not require printing or decoding, but could be "sound read" by operators. In 1838, at an exhibition of his telegraph in New York, Morse transmitted ten words per minute using the Morse code that would become standard throughout the world.

In 1842, Morse convinced Congress to provide $30,000 in support of his plan to "wire" the United States. Meanwhile, Morse also solicited and received advice from a number of American and European telegraphy experts, including Joseph Henry of Princeton, who had invented a working telegraph in 1831, and Louis Breguet of Paris. In 1844, Morse filed for a patent (granted 1849) of the printing telegraph. He had already proved that his device worked over short distances, and the Federal funds he raised had allowed him to string a wire from Baltimore to Washington. On May 11, 1844, Morse sent the first inter-city message. Soon thereafter, he gave the first public demonstration, in which he sent a message from the chamber of the Supreme Court to the Mount Clair train depot in Baltimore. The message itself was borrowed from the Bible by the daughter of the Commissioner of Patents and said, "What hath God wrought?" By 1846, private companies, using Morse's patent, had built telegraph lines from Washington to Boston and Buffalo, and were pushing further. The telegraph spread across the US more quickly than had the railroads, whose routes the wires often followed. By 1854, there were 23,000 miles of telegraph wire in operation. Western Union was founded in 1851, and in 1868, the first successful trans-Atlantic cable link was established. Though Morse didn't invent the telegraph and did not single-handedly create Morse Code, he may have been telegraphy's greatest promoter, and undoubtedly contributed to its rapid development and adoption throughout the world.

Morse died of pneumonia in New York on April 2, 1872. Late in his life, he shared his considerable wealth through grants to colleges such as Yale and Vassar, in addition to charities and artists.

--- Adapted from: the publications of MIT School of Engineering

Questions 1 – 6

On your answer sheet please write

TRUE	*if the statement is true*
FALSE	*if the statement is false*
NOT GIVEN	*if the information is not given in the passage.*

1 The telegraph was invented by Morse.

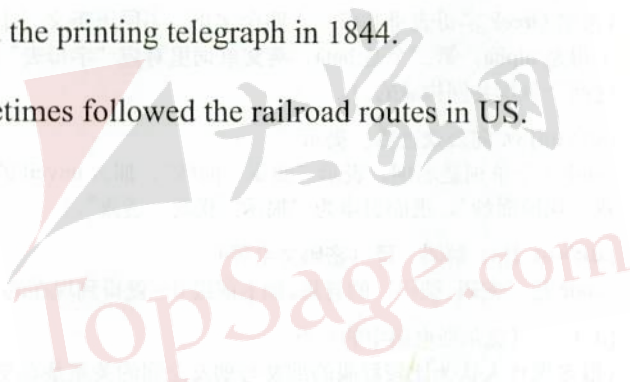
2 Morse was a great inventor as well as a famous portrait artist.

3 Too many separated wires of the telegraph prototype made it unfeasible.

4 It is unnecessary for operators to decipher Morse code.

5 Morse invented the printing telegraph in 1844.

6 The wires sometimes followed the railroad routes in US.



IELTS 大虾必备

telegraph	['teligra:f] *n.* 电报（机） （tele-grah 表示"远＋写"，传递"远处写来的信息"。）
academy	[ə'kædəmi] *n.* 学院、研究院 （英语中这个单词最初专门指 Plato 柏拉图的哲学学派。到英联邦国家留学的学生要参加 IELTS 考试的 A 类考试，这里的 A 代表 academic，即 academy 的形容词形式。）
steady	['stedi] *adj.* 稳定的、稳固的 （田径赛场上听到发令员喊："预备…跑！"，同样场景在英语国家人们常听到"Ready, steady, go!"）
take out a patent for ...	取得一项…的专利
overhear	[ˌəuvə'hiə] *vt.* 无意中听到
impractical	[im'præktikəl] *adj.* 不切实际的、无用的 （相关单词：practical *adj.* --- practice *n.* --- practise *v.*）
alphabet	['ælfəbit] *n.* 字母表 （希腊 Greek 字母表里共有二十四个字母，不同于英文二十六个字母。它的第一个字母是 alpha，第二个是 beta，英文单词里对应"字母表"这个概念的单词就是由这两个单词共同构成的。）
unveil	[ʌn'veil] *vt.* 向公众透露、揭示 （veil 这个单词是名词，表示"面罩、面纱"，那么 unveil 的基本含义就是"揭掉面罩、揭掉面纱"，进而引申为"揭示、揭露、透露"。）
decode	[ˌdi:'kəud] *vt.* 解码、译（密码文电等） （code 是"密码、编码"的意思，加上前缀 de- 就得到现在的"解码、破译"的含义。）
dot	[dɔt] *n.* （莫尔斯电码中的）点 （很多现代人认为比较舒服的朋友与朋友之间的关系是在交往过程中，人与人之间很有默契，双方都不必 dot every i and cross every t，字面含义是"不用给每个字母 i 都加点，也不用在每个字母 t 上都写下它的最后一笔"。意即"即便一方没有把自己的意思百分之百地表达出来，对方也充分明白了他或她的意图，这样生活中的很多细节就变得简单得多"。）
digit	['didʒit] *n.* （0 到 9 中的任何一个）数字、数位 （形容词形式：digital，digital camera 就是"数码相机"。）
transmit	[trænz'mit] *vt.* 传送、输送 （名词形式：transmission）
convince	[kən'vins] *vt.* 使确信、使信服，说服 （形容词形式：convincing）
solicit	[sə'lisit] *vt.* 征求、请求 （还记得前文 Barrister and Solicitor 中讲解过的 solicitor 吗？现在知道它是从哪个动词来的啦！）
file	[fail] *vi.* （~ for）提出申请 （作名词 file 表示"文件、文档"，用作动词表示"提出书面申请"。）

Supreme Court	最高法院
depot	['depəu;'di:pəu] *n.* （美）火车站
commissioner	[kə'miʃənə] *n.* 长官、专员
charity	['tʃæriti] *n.* 慈善、施舍行为，慈善团体

重点词汇回顾 + 同义词扩充

academy --- school, college, conservatoire
steady --- stable, constant, perpetual, ceaseless, unchanging, unvarying
overhear --- listen in, eavesdrop (on)
impractical --- unfeasible, unworkable, unusable
unveil --- reveal, disclose, uncover, unwrap
decode --- decipher, decrypt, interpret, translate
digit --- number, numeral, figure
transmit --- convey, transfer, transport, deliver
convince --- persuade, sway, win over, prevail upon
solicit --- ask, petition, implore, lobby
depot --- railroad station, terminus, bus station
commissioner --- official, officer, administrator
charity --- donations, contributions, offerings, alms

Exercise 2

KEYS TO COSMOLOGY

In what is widely regarded as the most important scientific discovery of 1998, researchers turned their telescopes to measure the rate at which cosmic expansion was decelerating and instead saw that it was accelerating. They have been gripping the steering wheel very tightly ever since.

As deeply mysterious as acceleration is, if you just accept it without trying to fathom its cause, it solves all kinds of problems. Before 1998, cosmologists had been troubled by discrepancies in the age, density and clumpiness of the universe. Acceleration made everything click together. It is one of the conceptual keys, along with other high-precision observations and innovative theories, that have unlocked the next level of the big bang theory.

The big bang is often described as an event that occurred long ago, a great explosion that created the universe. In actuality, the theory says nothing about the moment of creation, which is a job for quantum physics (or metaphysics). It simply states that as far back as we can extrapolate, the cosmos has been expanding, thinning out and cooling down. The big bang is best thought of not as a singular event but as an ongoing process, a gradual molding of order out of chaos. The recent observations have given this picture a coherence it never had before.
From the perspective of life on Earth, cosmic history started with inflation—a celestial reboot that wiped out whatever came before and left the cosmos a featureless place. The universe was without form, and void. Inflation then filled it with an almost completely uniform brew of radiation. The radiation varied from place to place in an utterly random way; mathematically, it was as random as random could be.
Gradually the universe imposed order on itself. The familiar particles of matter, such as electrons and protons, condensed out of the radiation like water droplets in a cloud of steam. Sound waves coursed through the amorphous mix, giving it shape. Matter steadily wrested control of the cosmos away from radiation. Several hundred thou-

sand years after inflation, matter declared final victory and cut itself loose from radiation. This era and its dramatic coda have now been probed by high-precision observations of the fossil radiation. Over the ensuing eons, matter organized itself into bodies of increasingly large size: subgalactic scraps, majestic galaxies, galactic clusters, great walls of galaxies. The universe we know—a set of distinct bodies separated by vast expanses of essentially empty space—is a fairly recent development, cosmologically speaking. This arrangement has now been systematically mapped. Starting several billion years ago, matter has been losing control to cosmic acceleration. Evidently the big bang has gotten a second wind, which is good for it but will be bad for us. The ever faster expansion has already arrested the formation of large structures and, if it continues, could rip apart galaxies and even the Earth.

In developing a cohesive and experimentally successful account of cosmic history, cosmologists have settled the disputes that once animated their field, such as the old debates between the big bang theory and the steady state theory and between inflation and its alternatives. Nothing in science is absolutely certain, but researchers now feel that their time is best spent on deeper questions, beginning with the cause of the cosmic acceleration.

Although the discovery of acceleration was revolutionary, cosmologists' initial response was fairly conservative. They dusted off an idea of Einstein's, the so-called cosmological constant, which represents a new type of energy—an example of what is more generally known as dark energy. But many physicists are thinking that a revolutionary discovery calls for a revolutionary response. Maybe the law of gravity works differently on gigantic scales in comparison with humble, everyday ones.

Just as a nuclear missile cannot be fired unless two keys are turned simultaneously, the explosive progress in cosmology has depended on multiple observational and theoretical keys being turned at once. Will the rush of new ideas lead to chaos? Will order reemerge? Or will it start to make sense again?

--- *Adapted from: Scientific American.com February 2004 issue*

Questions 1 – 6

On your answer sheet please write

YES	*if the statement agrees with the writer*
NO	*if the statement contradicts the writer*
NOT GIVEN	*if there is no information about this in the passage.*

1 The big bang is understood as an ongoing process rather than a single event.

2 In cosmic history, radiation dominated universe before matter did so.

3 The ever faster expansion will invariably tear apart the Earth.

4 In cosmologists' debates, the big bang and inflation theories defeated their alternatives such as the steady state theory.

5 Cosmologists' initial responses to the revolutionary discoveries were always conservative.

6 The law of gravity works in entirely distinct manners on small and gigantic scales.

IELTS 大虾必备

cosmology	[kɔz'mɔlədʒi] *n.* 宇宙论、宇宙（生成）学 （相关单词：cosmos *n.* 宇宙 --- cosmic *adj.* 宇宙的）
decelerate	[ˌdi:'seləreit] *vi.* 减速 （名词形式：deceleration。现在我们这样看这个单词：de-celer-ate 表示"向下＋速度＋动词词尾"，因此 decelerate 表示"减速"。）
accelerate	[æk'seləreit] *vi.* 加速 （名词形式：acceleration。有了上一个单词的理解基础，这个单词就相对比较容易——ac-celer-ate 表示"加强＋速度＋动词词尾"，因此表示"加速"。）
grip	[grip] *vt.* 紧握、握牢
fathom	['fæðəm] *vt.* 揣度、领会 （基本含义表示"用绳子测量…的深度"，引申为"透彻了解"。那么 unfathomable 是什么意思呢？un-fathom-able 表示"否定意义＋理解＋可…"，因此 unfathonable 表示"深不可测的、难以理解的"。）
discrepancy	[dis'krepənsi] *n.* 差异、不一致
density	['densiti] *n.* 密度、浓度 （形容词形式：dense）
innovative	['inəuveitiv] *adj.* 创新的、革新的 （这样透视这个单词 in-nov-ative，核心部分 nov 表示"新"，同理，大家要知道 novel 这个单词除了作名词表示"小"之外，还要知道它可以作形容词表示"新奇的、新颖的"，和单词 new 是同义词，而这个时候 novel 对应的名词是 novelty。而 innovative 对应的名词是 innovation。）
metaphysics	[ˌmetə'fiziks] *n.* 宇宙哲学、玄学 （形容词形式：metaphysical）
extrapolate	[eks'træpəleit] *vt.* 推断 （名词形式：extrapolation）
mold	[məuld] *vi.* 塑造、形成 （这个单词还可以拼写为 mould。）
chaos	['keiɔs] *n.* 混乱、混沌（宇宙未形成前的情形） （形容词形式：chaotic）
coherence	[kəu'hiərəns] *n.* 前后一致、协调 （形容词形式：coherent，incoherent 是该形容词的反义词形式。）
inflation	[in'fleiʃən] *n.* 充气、膨胀 （inflation 还有一个含义非常重要，即表示"通货膨胀"，其反义词为 deflation，表"放气、通货紧缩"。）
void	[vɔid] *adj.* 空（无所有）的
uniform	['ju:nifɔ:m] *adj.* 清一色的、一律的、不混杂的 （前面提到过 uni- 表示"单一"，这个单词的基本含义为"单一形式"，作名词表示"制服"，这里作形容词，基本意思为"单一形式的"，进一步引申而来上边的含义。再举几个与这个前缀有关的单词：unit、unity、unique、unicycle"单轮脚踏车"、unisexual"单性的"。）
impose	[im'pəuz] *vt.* 把 … 强加于 （名词形式：imposition）
condense	[kən'dens] *vt.* 使压缩、使凝聚 （condense 指由气体变成液体，固体压缩用 compress。）
droplet	['drɔplit] *n.* 小滴 （drop 表示"[点] 滴"，加上 -let 这个表示"小"的后缀，得到这里的含义。）

fossil	['fɔsl] *n.* 化石 （动词形式：fossilize）
ensuing	[in'sju:iŋ] *adj.* 后来的、接着而来的 （来自动词 ensue）
galaxy	['gæləksi] *n.* 银河、星系 （形容词形式：galactic）
vast	[va:st] *adj.* 辽阔的、广阔的
arrest	[ə'rest] *vt.* 阻止、抑制 （来自法语，在英语中还可以表示"逮捕、拘留"。）
constant	['kɔnstənt] *n.* 【物】常数、恒量 （作形容词表示"始终如一的、持久不变的"。）
gigantic	[dʒai'gæntik] *adj.* 巨大的、庞大的
humble	['hʌmbl] *adj.* 低劣的、谦逊的 （一说来自 umbles，表示"［鹿等动物的］内脏"，狩猎回来后有身份的主人将内脏分给仆人吃，因此，吃内脏就代表地位地下、谦卑。现在发展为 humble，在有些地区的英语发音里 humble pie 和 umble pie 一样，即字母 h 不发音。）
rush	[rʌʃ] *n.* 一大批、大量、激增
reemerge	['ri:i'mə:dʒ] *vi.* 重新浮现、重新出现、再次出现 （前边还介绍过 resurface，这里的 re-emerge 中 emerge 表示"显现、浮现"，re- 代表"再一次"，因此 reemerge 就自然为上边提到的含义喽！）

重点词汇回顾 + 同义词扩充

decelerate --- slow down, reduce speed, brake
accelerate --- speed up, increase speed, hasten, step up
grip --- clasp, clutch, seize
fathom --- understand, comprehend, figure out
discrepancy --- difference, inconsistency, incongruity, divergence
density --- thickness, compactness, concentration
innovative --- groundbreaking, pioneering, inventive, new, novel
extrapolate --- infer, reason, deduce, conclude
mold --- fashion, shape, form, model, construct
chaos --- confusion, disorder, commotion, disarray
coherence --- consistency, unity, uniformity
uniform --- homogeneous, monotonous, unchanging, unvarying
impose --- inflict, force, foist
condense --- concentrate, compact, compress, squeeze
ensuing --- subsequent, succeeding, resulting, following
vast --- enormous, gigantic, immense, titanic, immeasurable
arrest --- halt, block, obstruct, impede, hinder
humble --- lowly, underprivileged, simple, modest
reemerge --- reappear, resurface, rematerialize

Exercise 3

No Free Lunch

Five clumps of pens, robber-banded together, spill from an overstuffed envelope to the floor of Dr. Bob Goodman's office. Each ballpoint bears the name of a different blockbuster drug—Lipitor, Paxil, Zocor. They have been sent in by a doctor who'd learned about Goodman's one-man organization, No Free Lunch, and its "Pen Amnesty" program: Turn in your collection of industry-supplied freebies, and Goodman will send back a few replacement pens bearing the No Free Lunch insignia. "It's a money loser," Goodman says, "but it's a fun way to spread the word."

According to the Journal of the American Medical Association (JAMA), the pharmaceutical industry spends $8,000 to $13,000 per physician each year to promote its wares, which are hawked by a sales force of roughly 80,000 representatives. "If you randomly look at a doctor's white coat, you'll see a stethoscope tag with one drug company's name on it," says Goodman, an internist who also teaches at Columbia University's medical school. "Then there are several pens in their pockets, and calipers, each with a drug company's name. We're walking advertisements."

The ubiquity of perks has bothered Goodman since his med-school days in the late 1980s, when he felt uneasy eating pizzas supplied by drug salesmen. In 1999, Goodman was opening a new clinic for low-income patients in the Washington Heights neighbourhood of upper Manhattan. He decided to keep the clinic off-limits to drug sales representatives, but that meant cutting off access to the free drug samples doctors often give to patients who don't have medical coverage. "So I decided I was going to make up some pens and mugs in order to raise money to buy meds for patients," says Goodman. He created a website to sell the items, called it NoFreeLunch.org, and included some salient figures on the industry's marketing excesses. The site now attracts roughly 300 visitors a day, and well over 1,000 pens have been turned in.

Maryann Napoli, associate director of the Centre for Medical Consumers, a nonprofit dedicated to drug-marketing reform, says it's crucial for doctors and patients to see that not all health care providers are comfortable with corporate gifts. "I find No Free Lunch to be one of the few hopeful things in this area," she says. "So many doctors are now bought and paid for."

Though bad press has forced drug companies to scale back some of their more extravagant gifts, like the Caribbean getaways of yore, Goodman says expensive dinners, and tickets to Broadway shows and big-league games remain commonplace. One popular sales technique involves trailing a doctor to a gas station, then offering to pay for a lube job—during the wait at the shop, the sales representative has ample time to talk up his product. Then there are the

more lavish perks, like dinner and complimentary rooms at New York's Plaza Hotel; as the Washington Post reported last year, doctors who attended one such gala were also handed $500 checks from the event's sponsor, Forest Laboratories.

"Doctors take such umbrage when you suggest that the perks influence what they prescribe," says Goodman. "But of course they do—otherwise, they wouldn't be given out." Indeed, numerous studies have shown that perks and meals push physicians to prescribe certain drugs, even when better and less expensive options are available. By way of example, Goodman cites the calcium-channel blockers, like Pfizer's Norvasc, which treat high blood pressure and can cost more than $2 per pill. Last December, a study published in JAMA confirmed that those pills don't work nearly as well as thiazide diuretics, or water pills, which cost just pennies per dose; yet the more expensive drugs, which are heavily marketed to doctors, are far more frequently prescribed.

To alert physicians to such troubling data, Goodman has begun setting up informational booths at medical conferences, prowling the hallways in a T-shirt sporting the No Free Lunch logo. He has also started "The Pledge," an online oath that asks doctors to swear off pharmaceutical gifts; so far, more than 200 visitors to his site have signed the pledge.

Goodman's next step is to convince med schools to educate their students about the ethical hazard of accepting corporate gifts. Campus chapters of No Free Lunch regularly hold "pen exchange days" to get the message out, and Goodman works the lecture circuit. "But that's going to do very little if med students look around and see their role models doing this," he notes. "I'll give a lecture to first-year students who that afternoon are going to spend their day with a doctor in the clinic. And those rounds will start with lunch with a drug rep."

--- *Adapted from: Mother Jones, March–April, 2003*

Questions 1 – 6

On your answer sheet please write

TRUE	*if the statement is true*
FALSE	*if the statement is false*
NOT GIVEN	*if the information is not given in the passage.*

1 According to JAMA, each physician can obtain $8,000 to $13,000 per year from pharmaceutical industry's drug promotion.

2 Offering free entertainment, paying bills for doctors, even giving checks directly are the techniques the drug reps use.

3 The more expensive the drug, the better its healing effect.

4 The doctors who have signed the pledge on No Free Lunch website refuse pharmaceutical gifts.

5 According to Goodman, the deeds of the model have much greater influences than words.

6 Goodman has never received any perk from drug salesmen.

IELTS 大虾必备

overstuff	[ˌəuvəˈstʌft] *vt.* 把…塞得过满 (这里的 over- 表示“过分”，stuff 作动词表示“把…装满、塞满”，“塞得过满”就要用 overstuff 啦。 现在各个行业里都有一些人觉得自己为公司做了很多事，但是公司没有在薪金上给予足够的认可，这个时候他们总会说自己 overworked but underpaid。)
blockbuster	[ˈblɔkˈbʌstə] *adj./n.* [喻] 了不起的人（或事物）
amnesty	[ˈæmnesti] *n.* （尤指对政治犯的）大赦
insignia	[inˈsigniə] *n.* 标记、标志
pharmaceutical	[ˌfa:məˈsju:tikəl] *adj.* 制药的
physician	[fiˈziʃən] *n.* 医师、内科医师 (做外科手术的医生被称为 surgeon。)
hawk	[hɔ:k] *vt.* 叫卖、兜售 (由 hawker “沿街叫卖的小贩”这个单词转变而来。)
randomly	[ˈrændəmli] *adv.* 任意地、随机地 (形容词形式：random)
internist	[ˈintənist] *n.* 内科医师 (这个单词和 intern 都用来指人，后者指的是“实习医师、实习生”。)
ubiquity	[ju:ˈbikwəti] *n.* 普遍存在、无所不在 (形容词形式：ubiquitous)
sample	[ˈsæmpl] *n.* 样品
salient	[ˈseiljənt] *adj.* 显著的、突出的
associate	[əˈsəuʃieit] *adj.* 副的 (北美很多大学里的副教授被称为 associate professor，注意它不同于 assistant professor !)
reform	[riˈfɔ:m] *n.* 改革、革新 (form 表示“形式、形状”，re- 指“再一次”，所以这个单词的基本意思是“重新塑造一种形状、形式”，引申为上义。)
crucial	[ˈkru:ʃ(i)əl] *adj.* 至关重要的 (这里的前四个字母 cruc- 表示 cross “十字架”，又如 cruciform 既可以做名词，表示“十字形”，又可以作形容词，表“十字形的”。)
corporate	[ˈkɔ:pərit] *adj.* 公司的、团体的 (corp- 表示 body，单词 corporate 相对应的名词 corporation 表示“公司”，它是个实体；前文中提到过 incorporate 和 corporal 是两个相关单词。)
extravagant	[iksˈtrævigənt] *adj.* 奢侈的、浪费的
ample	[ˈæmpl] *adj.* 充足的、充分的
lavish	[ˈlæviʃ] *adj.* 过分丰富的、浪费的
complimentary	[ˌkɔmpliˈment(ə)ri] *adj.* 赠送的、免费赠送的
prescribe	[prisˈkraib] *vt.* 开处方、给医嘱 (名词形式：prescription)
option	[ˈɔpʃən] *n.* 选择 (opt 既是字根，又可以单独作动词，表示“选择”，这里是它的名词形式。什么是 optimism 呢？中文翻译为“乐观主义”，因为人只有在面对诸多选择的时候才觉得自己特别被需要，生活前景很好，从而很乐观，总是 wear a smile on his or her face；相反，总是碰到糟糕的或坏的事情就肯定怎么都乐不起来，所以“悲观主义”叫做 pessimism，这里 pess 表示“坏事情”。)

booth	[buːð] *n.* 摊位、隔开的小间 （看过爱尔兰裔影星 Colin Farrell 主演的 *Phone Booth*《电话亭》吗？现在知道 booth 这个单词代表的 image 了吧。）
logo	[ˈlɔgəu] *n.* （广告等用的）标志、商标
pledge	[pledʒ] *n.* 保证、誓言
oath	[əuθ] *n.* 誓言、宣誓 （最庄严的誓言 [oath or vow] 莫过电视、电影里常常演绎的结婚典礼上新娘新郎在牧师的引导下许下的诺言 [the Solemn Promise] 喽。通常天主教徒的婚礼上，牧师会导引新人完成整个仪式。下边是核心程序： The priest tells the bride and groom to join their right hands and declare their consent before God and His Church. Having done this, the couple take their wedding vows. They promise, individually, to be true to the other in good times and in bad, in sickness and in health. They promise to love, respect and honour each other all the days of their lives. The priest blesses the couple, joining them together in marriage, and says, "May the Lord in His goodness strengthen your consent and fill you both with His blessings. What God has joined together, let no man put as under."）
ethical	[ˈeθikəl] *adj.* 伦理的、道德的 （前面提到过它的名词形式 ethic，什么是 ethnic？形容词，表示"种族的、人种的"，ethnic group 指"少数民族"。）
hazard	[ˈhæzəd] *n.* 危险、冒险 （形容词形式：hazardous）
circuit	[ˈsəːkit] *n.* 巡回、环行 （circ- 表示"圆 [形]"，相关单词：circle、circus、circulate。）

重点词汇回顾 + 同义词扩充

overstuffed --- overfilled, brimming, overflowing
insignia --- emblem, sign, symbol, logo, badge
randomly --- aimlessly, erratically, at random, casually
salient --- striking, noticeable, prominent, outstanding
crucial --- vital, critical, pivotal, key, essential
extravagant --- overgenerous, spendthrift, wasteful, lavish
ample --- sufficient, plentiful, abundant, bounteous, copious
complimentary --- free (of charge), gratis, on the house
option --- choice, selection, alternative, preference
pledge --- vow, oath, promise, assurance, guarantee
ethical --- moral, principled, decent, virtuous
hazard --- danger, peril, risk, menace, threat
circuit --- tour, trip, journey

Exercise 4

LONDON SMOG

While the GOLDEN JUBILEE of Elizabeth II has been in full swing since the summer, another anniversary of unhappier events that occurred in the year of her accession remains largely unsung. From December 1952 to March 1953 in Greater London 12,000 residents more than usual perished in what was modern London's most massive civilian disaster. Smoke from a million chimneys ran like water and pumped clotted, coal-fumes into cooler stilled air. Unable to disperse upwards through the heavier chillier air, hot, smoky fumes fell to the ground and did not visibly diminish for a solid week. During the unprecedented 1952 smog, the sun remained unseen. Dark days became murky shadowed nights. Because more people lived closer together in London at that time than in any other modern city, the city's residents suffered a colossal health toll.

The historian Peter Brimblecombe reports that for centuries, the city had the world's greatest concentration of coal stoves, most inhospitable airs and regularly foggy weather. In the Middle Ages, mountains of coal piled up in London as a result of sea trade. From its large port, London regularly sent out vessels laden with animal hides, whale oil, tallow, dried fish and meats, fertiliser and wools. Ships often returned from the less-populated northern British Isles empty, except for the crew. To weather the rough seas around the coast, mariners filled their holds with what became known as sea-coale, carbonem marus.

By the thirteenth century, mounds of dusty black rock clogged city streets, docks and alleys. In an effort to rid themselves of the black heaps that filled the city, Londoners began to char coal, which lasted longer and burned hotter than wood. Not all were enthralled with its smoke. Queen Eleanor, fleeing the fumes created by heavy use of sea-coale in Nottingham Castle in 1257, issued one of many fruitless royal bans on coal burning. By the fifteenth century, London's skies were regularly blackened with coal smoke. Many residents blamed the region's foggy weather for the persistent greyed airs.

The debate about whether coal smoke affected human health ended the winter of 1952–53 in London. On December 8th, cool air from across the English Channel settled over the Thames Valley and did not move. Within a week more than 3,000 deaths than usual had occurred. The medical essayist David Bates, then a young physician experienced in wartime medicine, recalls that officials could not imagine that the environment could produce more civilian casualties in London than any single incident of the war. In sheer scale this disaster could not be ignored. In one week alone 4,703 people died, compared with 1,852 during the same week the previous year.

Bates recounts the reluctance of officials to accept that so many people had

suddenly dropped dead merely from breathing dirty air. He adds: 'The public realised this earlier than the government of the day.' One Member of Parliament put this episode into context when he asked Harold Macmillan, then Minister of Housing: 'Does the Minister not appreciate that last month, in Greater London alone, there were literally more people choked to death by air pollution than were killed on the roads in the whole country in 1952?'

Eager to put off demands that measures be taken to reduce use of dirtier coal, and focus on the nation's grim economic realities, the British Government sprang into inaction. But Macmillan understood the need for officials to look like they were doing something in the face of this massive civilian catastrophe. In a cynical move, he authorised the issuance of smog masks, known to be useless. And in a respected government tradition, he found it easier to set up a committee to study the problem, rather than come up with ways to keep lethal smogs from recurring. By 1954, the committee report noted that deaths and illnesses remained higher than usual until the end of February 1953. By 1956 major legislation to require reductions in coal burning became the law of the land.

Today the public faces newer challenges. While air pollution from coal no longer plagues urban areas, that from diesel vehicles and other aspects of modern life, including precursor chemicals, which give rise to photochemical oxidants, exact a major avoidable price on people's health. Just as the impact of the London smog did not end in a single week but extended over several months, regular exposure to much lower levels of soiled air today produces a broad array of human health problems, including earlier deaths in the aged, the ill and the young, fewer births, more birth defects, and more health problems in children.

In truth, environmental contamination never appears on anyone's death certificate, and is seldom thought of as a contribution to chronic illness. Major types of death and sickness, like heart and lung diseases, all are well known to have different causes. Smoking cigarettes and excessive alcohol consumption are among the most important and widely acknowledged avoidable health risks today. But these bad habits cannot account for the persisting excess of lung cancer and other ailments in urban areas. Those who conduct studies on the impact on health of polluted air today owe a major debt to those who died in 1952–53, and those who succumbed in other less well known episodes later. For instance, in 1962, during another heavy smog, 750 more deaths than usual occurred.

No fitting memorial has yet been devised to commemorate these deaths. As a city full of monuments and other mementoes from its colourful history, and as the site of a disaster that set the stage for modern environmental laws, London can now afford to create a monument to honour the 12,000 whose lives ended in the greatest officially recognised urban air pollution disaster in modern history.

--- Adapted from: London School of Hygiene and Tropical Medicine
The Perseus Press, 14.99

Questions 1 – 8

On your answer sheet please write

TRUE	*if the statement is true*
FALSE	*if the statement is false*
NOT GIVEN	*if the information is not given in the passage.*

1 In 1952, London was the most densely populated city in the world.

2 In the Middle Ages, the sea-coale accumulated in London city was for sailing purpose.

3 The trade ship returned back to London with the crew only.

4 To get rid of sea-coale, Queen Eleanor called for burning coal.

5 Less than 3,000 people would die within one week in 1952–1953 if it were not for the coal smoke.

6 Macmillan drafted out the law to reduce the coal burning.

7 In fact, no one died from environmental contamination.

8 Smoking, as well as polluted air, can result in lung cancer and other ailments.

IELTS 大虾必备

smog	[smɔg] *n.* 烟雾 （由单词 smoke 和 fog 合成。）
anniversary	[ˌæni'və:səri] *n.* 周年纪念 （前三个字母 ann- 表示“年”，前边我们提到过 annual 表示“一年一度的、每年的”。）
accession	[æk'seʃən] *n.* （帝王的）登基、即位
clot	[klɔt] *vt.* 使凝结成块
fume	[fju:m] *n.* （有害、浓烈或难闻的）烟、气、汽
diminish	[di'miniʃ] *vi.* 减少、变小 （mini 表示“小、迷你”，例如 miniskirt 表示“迷你裙”，也就是超短裙。林语堂曾经将自己简短、精炼的讲演比喻为女孩子穿的 miniskirt，而且说 the shorter, the better“越短越好”！）
unprecedented	[ʌn'presidəntid] *adj.* 空前的、史无前例的 （precedent 是名词，表示“先例”。因此，un-precedent-ed 对应“无 + 前例 + 的”，进而得到“史无前例的”。）
colossal	[kə'lɔsl] *adj.* 巨大的、庞大的
toll	[təul] *n.* （因疾病、意外事故等的）伤亡、损失、代价
inhospitable	[in'hɔspitəbl] *adj.* 不适合居住的、不好客的 （反义词：hospitable）
weather	['weðə] *vt.* 经受住、平安地度过（风雨、困难等） （由名词转变而来的动词，表示“经历过风吹雨打等各种天气变化 [还平安地返回…]”）
mariner	['mærinə] *n.* 海员、水手 （形容词形式 marine 表示“航海的、海的”；十九世纪英国著名诗人 S. T. Coleridge 的名作 *The Rhyme of the Ancient Mariner*《老水手之歌》里描写了老水手杀死了海鸟信天翁 albatross 然后将鸟的尸体挂在脖子上以示赎罪，这首诗已经赋予 albatross 这个单词又一个意义——“无法摆脱的苦恼”。）
alley	['æli] *n.* 小巷、胡同 （了解“胡同”和“四合院 [enclosed courtyard]”是了解老北京历史和文化的必修课。A hutong is an ancient city alley or lane typical of Beijing, where they run to several thousand in number. Surrounding the Forbidden City [紫禁城], many were built during the Yuan, Ming and Qing dynasties. In these dynasties the emperors planned the city and arranged the residential areas according to etiquette [礼仪、礼节] systems.）
enthrall	[in'θrɔ:l] *vt.* 迷惑、迷住、着迷
casualty	['kæʒjuəti] *n.* 伤亡、伤亡人员
sheer	[ʃiə] *adj.* 纯粹的、全然的
recount	[ri'kaunt] *vt.* 叙述、讲述
merely	['miəli] *adv.* 仅仅、只不过 （形容词形式：mere）
Parliament	['pa:ləmənt] *n.* （英国等国的）国会、议会 （前文提到过美国等国的国会称为 Congress，这里国会一般用来指英国的较多。单词 parliament 来自法语单词 parler，表示“说话”，说明 [英国] 国会是议员去说话、去演讲、去吵架的场所。）
episode	['episəud] *n.* 插曲、一个事件
choke	[tʃəuk] *vt.* 使窒息、闷死、使不能呼吸 （在这个单词的基础上，什么是 choker 呢？笼统的讲是“使人窒息的东西”，如果用来指人佩戴的饰物的话，指“贴颈的项链”，即“颈链”。）
issuance	['iʃu(:)əns] *n.* 配给、发行 （动词形式：issue）

mask	[ma:sk] *n.* 面具、面罩 （还记得前边提到过的单词 unmask 吗？表示“摘掉面具”，即“揭示、揭露”。）
lethal	['li:θəl] *adj.* 致命的 （好莱坞著名影星兼导演 Mel Gibson 早年拍摄的电影《致命武器》的在英文即为 *Lethal Weapon*。）
plague	[pleig] *vt.* 使受灾祸、烦扰 （作名词，它表示“瘟疫”，这里活用成动词，遭受瘟疫这样的灾祸的时候，人们肯定心情好不了，觉得很烦。）
exact	[ig'zækt] *vt.* 索取、强求
defect	[di'fekt] *n.* 过失、缺点
contamination	[kən,tæmi'neiʃən] *n.* 污染 （动词形式：contaminate）
ailment	['eilmənt] *n.* 疾病
succumb	[sə'kʌm] *vi.* 死于；屈服、屈从
memorial	[mi'mɔ:riəl] *n.* 纪念馆、纪念物 （这里的前五个字母 memor- 表示“记忆”，相关的有如下几个单词： memory --- *n.* 记忆 memorial --- *adj.* 记忆的 memorize --- *vt.* 记忆 commemorate --- *vt.* 纪念 [com-memor-ate 表示“共同＋记忆＋动词词尾”——“大家一起记忆”——“纪念”] memorandum --- *n.* 备忘录 [这个单词经常被缩略为 memo]）

重点词汇回顾 ＋ 同义词扩充

accession --- succession, taking office
clot --- congeal, solidify, thicken
diminish --- fade (away), ebb, lessen
colossal --- massive, immense, gigantic, enormous, titanic
weather --- endure, survive, live through, withstand
enthrall --- captivate, mesmerize, fascinate, enchant
sheer --- pure, absolute, utter, complete
recount --- tell, relate, narrate, describe
merely --- just, only, simply, purely
episode --- chapter, incident, occurrence, event
choke --- suffocate, stifle, strangle
lethal --- deadly, fatal, mortal, disastrous, ruinous
plague --- trouble, pester, agitate, vex, perturb, bother
exact --- demand, extort, extract
defect --- flaw, imperfection, blemish, weakness
contamination --- pollution, infection, uncleanness
ailment --- illness, sickness, disease, infirmity
succumb --- die, pass away, expire, perish, depart

Exercise 5

Snake Venom



What is it about snakes that mesmerize people? For thousands of years, these creatures have inspired religious myths, fanatical fear, and endless curiosity. Streamlined to the bare essentials — mouth, belly, brain, spine — snakes manage to slink over desert sands and rocky slopes as well as swim in rivers and glide through the rainforest canopy.

In more than 100 million years on Earth, they've evolved to elegant perfection. "The way a snake moves, through sleek body curves, light shining off its scales, is one of the most impressive sights nature has to offer," says cobra expert Wolfgang Wuster at the University of Wales. Apes climb with powerful arms and hands; frogs swim with webbed feet; falcons seize prey with sharp talons. Snakes merely with a backbone do all these things. Among them, the king cobra's aggressive reputation and its lethal defenses have inspired people to view its powers as godlike. In India and Southeast Asia, societies have long revered cobras and king cobras and placed them at the center of their most sacred rites.

The deadly weapon of king cobra is its fangs, almost half an inch (8–10 millimeters) long. Because they are fixed to the upper jaw, they have to be short. If they were longer, the king might bite the floor of its mouth and commit royal suicide. Angled back into the snake's mouth, the fangs help push the prey on its path to the stomach. A regal bite delivers venom from glands attached to the fangs. The flexing of a small muscle forces the venom through the hollow fangs into the victim. Within minutes, neurotoxins stun the prey's nervous system, especially the nervous impulses for breathing. Other toxins start digesting the paralyzed victim. Drop for drop, a king cobra's venom is actually less lethal than a common cobra's. The king more than makes up for it by delivering more venom per bite — as much as 0.2 fluid ounces (7 milliliters) of liquid. That's enough to kill an elephant, or 20 people.

Snake venom is produced by special cells in two large venom glands on each side of the head. Out of 3,000 known species of snakes, more than 500 are venomous. The 10 most lethal snakes in the world belong to the elapids — often called the cobra family. Cobra venom kills via neurotoxins, proteins that paralyze an animal's nervous system and diaphragm, abdominal muscles used to breathe. The snake metes out the exact amount of venom needed to suffocate the prey, then swallows its catch. The proteinaceous nature of snake venom was established by Napoleon Bonaparte's brother, Lucien in 1843. Proteins constitute the major portion of venom's dry weight — 90% or more. Snake venom is a cocktail of hundreds, sometimes thousands, of different proteins and enzymes. Many of these proteins are harmless but a percentage of them are toxins. The makeup of these toxins varies widely from species to species. This complexity accounts for the widely differing effects of snakebite.

Meanwhile, venoms are also rich in hydrolithic enzymes, a complex mix of polypeptides, nucleases, peptidases, etc., which help digest the snake's prey. Some of them also enhance or contribute to the toxic effect of the venom. As early as 1949 it was shown that an enzyme from the Bothrops species produces a vasodilation resulting from the production of a hypotensor neuropeptide, bradykinin. This had important consequences for man leading to drugs for the control of blood pressure.

Anti-venoms were first produced a century or more ago. Albert Calmette demonstrated that it was possible to "hyper-immunize" an animal against snakebite by graduated and increased regular dosage of that animal with the venom of that snake. He further demonstrated that a second animal could be saved after snakebite by introducing the serum of the immunized creature. This discovery is still the basis of the production of modern anti-venoms.

A few modern modifications have been introduced — such as the neutralization of the venom with formaldehyde before use on the animal. This removes a lot of the earlier suffering such animals endured. The animal of choice is the horse. Increasing doses of venom are injected until the animal becomes hyper-immunized and thereafter blood is drawn and the serum removed. The rest of the blood is transfused back into the animal. The serum then passes through various stages of refinement before it is released for use on humans. It contains immunoglobulins and these are digested by pepsin to isolate the antigen that neutralizes the venom.

These anti-venoms are very safe, however they are an animal protein derivative and a small percentage of people react dangerously to it. They display a hyper-allergic reaction which leads to anaphylactic shock which can kill. In a hospital situation a cocktail of anti-histamines and hydro-cortisones would be administered properly. Then a small test sample of anti-venom is administered and the reaction to it noted before a full dose is injected or preferably dripped into the patient in an intravenous solution.

The production of serum from a single venom is known as a "monovalent" anti-venom and is efficacious only on the snake from which the venom comes. When a cocktail of venoms is used in the hyper-immunisation process the serum produced is a "polyvalent" serum and is effective against a range of venoms. However the addition of each venom causes a loss of efficiency and potency in the anti-venom as a whole. So a delicate balance of similar venoms is usually used to produce an anti-venom against the known snakes of a given area.

The anti-venom serum commonly available in India is of the polyvalent type (made from the venom of the 'Big Four' — the Spectacled Cobra, Common Krait, Russell's Viper, and Saw Scaled Viper) and is supposed to be available in most primary health centres and hospitals. In the United States, the study of cobra venom has yielded pain relievers such as Cobroxin, used to block nerve transmission and Nyloxin, used for severe arthritis pain.

--- *Adapted form: science world; nationalgeographic*

Questions 1 – 10

On your answer sheet please write

YES	*if the statement agrees with the writer*
NO	*if the statement contradicts the writer*
NOT GIVEN	*if there is no information about this in the passage.*

1 Snakes can catch prey with their talons.

2 The king cobra can bite itself with fangs and commit suicide.

3 The only way cobra venom kills is to paralyze an animal's nervous system.

4 A common cobra's venom is more fatal than a king cobra's on the drop basis.

5 For snakes, the only role of venom is to kill animals.

6 After 1949, some drugs for the control of blood pressure are made from an enzyme from the Bothrops species.

7 The animal, once recovering from a certain snakebite, will be immunized against the same venom.

8 An anti-venom produced from similar venoms is a tradeoff between its effectiveness and suitable range.

9 The anti-venoms are safe for all the people.

10 The anti-venom serum made from the venom of the 'Big Four' is only available in India.

IELTS 大虾必备

venom	['venəm] *n.* （蛇的）毒液 （形容词 venomous 表示“有毒的、分泌毒液的”。）
fanatical	[fə'nætikəl] *adj.* 盲目的、狂热的 （名词“狂热者、盲目的人”是 fanatic。）
streamline	['stri:mlain] *vt.* 精简、将…压缩至最低限度
essential	[i'senʃəl] *n.* [~s] 要素、实质、基本必要的东西 （名词 essence 表示“精髓、本质”；quintessence 也表示“精萃、精华”，它的构成可以理解为 quint-essence 表示“[数字] 五＋精髓”，它的理念来自中世纪哲学，认为除空气、水、火、土之外的构成天体的第五要素是精髓中的精髓。）
spine	[spain] *n.* 脊骨
glide	[glaid] *vi.* 滑行、滑移
cobra	['kəubrə] *n.* 眼镜蛇
prey	[prei] *n.* 被捕食的动物，猎物
aggressive	[ə'gresiv] *adj.* 好斗的、有侵略性的 （理解为 ag-gress-ive 表示“加强意义＋行走＋形容词后缀”，指一个人在同别人讲话的时候，讲一段就向对方迈进一步，有逼进对方的感觉，直到对方完全认同他或她的观点、看法为止。）
revere	[ri'viə] *vt.* 敬畏、崇敬 （名词形式：reverence）
sacred	['seikrid] *adj.* 值得崇敬的、神圣的
rite	[rait] *n.* （宗教等的）仪式 （发音和 right 一样，注意拼写！）
fang	[fæŋ] *n.* （毒蛇的）毒牙 （美国著名作家杰克·伦敦 Jack London 于 1906 年创作的名著《白牙》*White Fang* 描写了一只名叫“白牙”的野狼从野蛮到驯服的故事。）
regal	['ri:gəl] *adj.* 庄严的、威严的；帝王似的
gland	[glænd] *n.* 【解剖】腺
flex	[fleks] *vt.* 屈曲（四肢、关节等）、使（肌肉）收缩 （名词形式：flexion）
toxin	['tɔksin] *n.* 【生化】毒素
paralyze	['pærəlaiz] *vt.* 使瘫痪、使麻痹 （名词形式：paralysis）
via	['vaiə] *prep.* 经由、通过 （例句 Peter booked a ticket from Beijing to Hong Kong via Shanghai. 表示“彼得预定了一张从北京出发，经由上海到香港的机票。”）
abdominal	[æb'dɔminl] *adj.* 腹部的 （名词形式：abdomen 表示“腹部”。）
mete out	分配、配给
suffocate	['sʌfəkeit] *vt.* 使窒息 （相关单词：suffocating *adj.* --- suffocation *n.*）
cocktail	['kɔkteil] *n.* （似鸡尾酒以不同材料混合而成的）合成物

enhance	[in'ha:ns] *vt.* 提高、增强 （名词形式：enhancement）
immunize	['imju(:)naiz] *vt.* 使免疫、赋予免疫性 （相关单词：immunization *n.* --- immunity *n.* 免疫性）
modification	[ˌmɔdifi'keiʃən] *n.* 修正、修改 （动词形式：modify）
neutralization	[ˌnju:trəlai'zeiʃən] *n.* 中和、中立化 （相关单词：neutral *adj.* --- neutralize *vt.*）
transfuse	[træns'fju:z] *vt.* 【医】输血 （名词形式：transfusion）
derivative	[di'rivətiv] *n.* 【化】衍生物 （动词形式：derive）
allergic	[ə'lə:dʒik] *adj.* 过敏的 （名词形式：allergy）
intravenous	[ˌintrə'vi:nəs] *adj.* 静脉内的、进入静脉的 （名词 vein 表示"静脉"，它的形容词 venous 表示"静脉的"，这里加上前缀 intra- 表"在…内部、里边"，因此 intravenous 得出上义。）
yield	[ji:ld] *vt.* 产生、带来
arthritis	[a:'θraitis] *n.* 关节炎 （需要掌握的常见病症还有：asthma "哮喘"，diabetes "糖尿病"，obesity "肥胖症" 等。）

重点词汇回顾 + 同义词扩充

fanatical --- obsessive, fervent, passionate, addicted, frenzied
streamline --- rationalize, simplify, reorganize, restructure
prey --- quarry, kill, game, victim
aggressive --- bellicose, belligerent, hostile, assertive, uncompromising
revere --- respect, hold in the highest regard, worship, venerate
sacred --- holy, hallowed, consecrated, revered, sanctified
rite --- ritual, service, formal procedure, sacrament
suffocate --- smother, choke, stifle, throttle, snuff out
cocktail --- concoction, brew, blend, mixture, mélange
enhance --- increase, improve, augment, boost, heighten
modification --- alteration, adjustment, amendment, variation
allergic --- hypersensitive, affected
yield --- produce, generate, bring forth

Exercise 6

Bullying at School: Tackling the Problem

A broad definition of bullying is when a student is repeatedly exposed to negative actions on the part of one or more other students. These negative actions can take the form of physical contact, verbal abuse, or making faces and rude gestures. Spreading rumours and excluding the victim from a group are also common forms. Bullying also entails an imbalance in strength between the bullies and the victim, what experts call an asymmetric power relationship.

Bullying among schoolchildren is certainly a very old phenomenon, though it was not until the early 1970s that it was made the object of systematic research. Though this research originally focused on Scandinavia, by the 1980s bullying among schoolchildren had attracted wider attention in countries such as Australia, Canada, Japan, the Netherlands, the United Kingdom and the United States.

The surveys of more than 150,000 students show that some 15% of pupils in elementary and lower secondary/junior high schools, roughly corresponding to ages 7 to 16, in Scandinavia are involved in bully/victim problems with some regularity — either as bullies, victims or both. Approximately 9% are victims, and 7% bully other students with some regularity. A relatively small proportion (15%–20%) of the victims are themselves bullies of other pupils. These figures probably underestimate the problem, and there are indications that the level of bullying has risen over the last 10–15 years. More worrying, it is the more frequent and severe forms of bullying that have increased most.

Scandinavia is clearly not the stable rock of peace and calm it is often portrayed to be. Still, bullying may be more prevalent in other countries. For example, one British study of over 6,700 students shows that more than a quarter (27%) of primary school students reported being bullied with some regularity; this figure was 10% for secondary school students. With regard to bullying other students, corresponding figures were 12% for primary and 6% for secondary school students.

These are the raw data, but what about the background? There is considerable research literature on the characteristics, family backgrounds, long-term outcomes for victims and bullies, mechanisms and group processes involved. Fundamentally, bullying has to be seen as a component of more generally antisocial and rule-breaking behaviour. In other studies, some 35% to 40% of boys who were characterised as bullies in Grades 6 to 9 (ages 13 to 16) had been convicted of at least three officially registered crimes by the age of 24. In contrast, this was true of only 10% of boys who were not classified as bullies. In other words, former school bullies were four times more likely than other pupils to engage in relatively serious crime.

There are several common assumptions about the causes of bullying for which there is no supporting evidence. They include claims that bullying is a consequence of large class or school sizes, or of the competition for grades and other pressures that school generates. Another common assumption is that under a tough surface bullies, in fact, suffer from poor self-esteem and insecurity. These views are no more accurate than the stereotype that students who are fat, red-haired and wear glasses are particularly likely to become victims of bullying.

In reality, other factors are more important. Certain personality characteristics and typical reaction patterns, combined with the level of physical strength or weakness in the case of boys, can help to explain the development of bullying problems in individual students. At the same time, environmental influences, such as teachers' attitudes, behaviour and supervisory routines play a crucial role in determining the extent to which these problems will manifest themselves in a classroom or a school.

Victims of bullying form a large group of students who tend to be neglected by their schools. Yet it is a fundamental human or democratic right for a child to feel safe in school and to be spared the oppression and repeated, intentional humiliation of bullying. Governments and school authorities have therefore an important role to play in assuring that these rights are honoured.

A Swedish law passed in 1994 and amended in 1997 goes some way to upholding these children's rights at school. The associated regulations also make school principals responsible for realising these goals, including the development of an explicit intervention plan against bullying. Similar legal moves, although with somewhat weaker formulations, have been made in a few other countries, notably Norway and the United Kingdom.

As bully/victim problems have gradually been placed on formal school agendas in many countries, a number of suggestions about their handling and prevention have been proposed. Some of these suggestions and approaches seem ill-conceived or even counterproductive, such as excessive focus on changing the victims' behaviour to make them less vulnerable to bullying. Others appear meaningful and potentially useful. A key problem, however, is that most of them have either not had positive results or have not been subjected to proper evaluation. Therefore it is difficult to know which measures actually work and which do not. Yet it is the results that count, not how adults might feel about using a programme.

The situation is well illustrated by the following. Recently, a US expert committee under the leadership of a respected criminologist, Professor Delbert Elliott, systematically evaluated more than 400 violence (or problem-behaviour) prevention programmes. Only 10 of the programmes (four of which were school-based) satisfied the specified minimum criteria of the evaluation. These criteria were that they could show documented successful results, that the positive effects had lasted at least a year and that the programme had produced positive results in at least one site beyond the original one. These "Blueprint" or model programmes are now being implemented in a number of sites with financial support from the US Office of Juvenile Justice and Delinquency Prevention.

Bullying Prevention Programme, founded by Dan Olweus of the University of Bergen, is one of the 10 US Blueprint programmes and was the programme selected by the Norwegian committee. In this programme, the tools are quite straightforward, ranging from adult awareness and parent meetings to classroom rules against bullying, followed up by regular classroom meetings with the students.

The first evaluation of the use of the intervention programme was based on data from approximately 2,500 students (aged 11–14) in 42 primary and lower secondary/junior high schools in Bergen, Norway. The subjects of the study were followed over a period of two and a half years, from 1983 to 1985. The main findings were threefold. First, there were marked reductions — by 50% or more — in bully/victim problems for the periods studied, which included 8 and 20 months of intervention. Second, clear reductions were recorded in general antisocial behaviour, such as vandalism, fighting, pilfering, drunkenness and truancy. And third, the social climate of the classroom was greatly improved, while student satisfaction with school life rose too.

The Norwegian government has now decided to offer the Bullying Prevention Programme to all comprehensive schools in Norway. A key element of the new initiative is the establishment of educational teacher discussion groups at each school. These groups will receive training and supervision from special trainer candidates, who in turn are trained and supervised by the Group for the Prevention of Bullying and Antisocial Behaviour at the University of Bergen. In this way, it will be possible to reach out to a large number of schools in a relatively short time.

---Adapted from: publications of Research Centre for Health Promotion, University of Bergen

Questions 1 – 10

On your answer sheet please write

TRUE	*if the statement is true*
FALSE	*if the statement is false*
NOT GIVEN	*if the information is not given in the passage.*

1 Making rude gestures towards others is not a bullying behaviour.

2 Bullying has existed at school for a long time.

3 According to the surveys in Scandinavia, there are more bullying victims than bullies among students.

4 The problem is definitely more serious than what these surveys' figures have shown.

5 The teenagers who conduct bullying in school will commit crimes in their adulthoods.

6 Competition for grades and other pressures should take the responsibility of school bullying.

7 The best way to avoid school bullying is to be physically strong.

8 Although the related law and regulations were reinforced in Sweden, few schools fully implemented it.

9 The Group for the Prevention of Bullying and Antisocial Behaviour will train the educational teacher discussion groups at each school in Norway.

10 Overall, the problem-behaviour prevention programmes in the U.S. generate satisfying results.

IELTS 大虾必备

bully	['buli] *vi.* 欺负人、横行霸道
verbal	['və:bl] *adj.* 口头的
abuse	[ə'bju:s] *n.* 辱骂、虐待
entail	[in'teil] *vt.* 使成为必要
asymmetrical	[,æsi'metrikəl] *adj.* 不均匀的、不对称的 （这里的第一个字母 a 表否定意义，"对称的、均匀的"对应的英文是 symmetrical，名词形式 symmetry "对称、匀称"。）
correspond	[,kɔri'spɔnd] *vi.* 相符合、相一致、相配
underestimate	[,ʌndər'estimeit] *vt.* 低估、看低 （前文我们已经比较过英文单词前缀 under- 和 over- 的差别，因此"过高估计"为 overestimate。）
prevalent	['prevələnt] *adj.* 流行的、普遍的 （相关单词：prevail *v.* --- prevalence *n.*）
outcome	['autkəm] *n.* 结果、后果 （这个名词来自动词短语 come out，同样由短语转变而来的表示"后果、结果"的名词还有 upshot，它来自 shoot up。）
antisocial	[,ænti'səuʃəl] *adj.* 反社会的、有害于公众利益的 （前缀 anti- 表示"反对、抵抗"，因此有上义。）
convict	['kɔnvikt] *vt.* （经审讯）证明…有罪、宣判…有罪 （名词形式：conviction）
self-esteem	[,selfi'sti:m] *n.* 自尊（心）
manifest	['mænifest] *vt.* 显示、表明 （相关单词：manifest *adj.* --- manifestly *adv.* --- manifestation *n.* --- manifesto *n.* 宣言、声明）
oppression	[ə'preʃən] *n.* 压迫、镇压 （相关单词：oppress *vt.* --- oppressing *adj.*）
humiliation	[hju:,mili'eiʃən] *n.* 耻辱、屈辱 （动词形式：humiliate）
amend	[ə'mend] *vt.* 修正、改进 （名词形式：amendment）
principal	['prinsəpəl] *n.* （中学）校长 （这个单词还可以作形容词，表示"主要的、首要的"。）
explicit	[iks'plisit] *adj.* 明确的、明晰的、不含糊的 （反义词是 implicit，表示"暗含的、含蓄的"，这一对单词的构成正如 export 和 import，它们也互为反义词。）
intervention	[,intə(:)'venʃən] *n.* 干预、干涉、调停 （动词形式：intervene）

formulation	[ˌfɔːmjuˈleiʃən] *n.* 系统的阐述、规划 （动词形式：formulate）
agenda	[əˈdʒendə] *n.* 议程
conceive	[kənˈsiːv] *vt.* 构想出、设想 （相关单词：conception *n.* --- conceptive *adj.* 这一组动词、名词和形容词的词形变化类似于 receive *vt.* --- reception *n.* --- receptive *adj.* perceive *vt.* --- perception *n.* --- perceptive *adj.*）
counterproductive	[ˈkauntəprəˌdʌktiv] *adj.* 达不到预期效果的、产生相反效果的 （很多人喜欢玩名为 CS 的游戏，那么 CS 究竟代表什么呢？ Yes, Counter Strike! 中文将这个游戏的名字翻译为"反恐精英"，这样就容易理解它的前缀 counter- 表示的含义啦——"相反、相对"，CS 基本含义指的是"有人打了 A，A 就回手反击"。这里的 counter-productive 前缀表示"相反、相对"，productive 表示"有效果的、卓有成效的"，因此得到上边提到的含义。自己再考虑一下 productive 对应的名词和动词形式吧！）
illustrate	[ˈiləstreit] *vt.* 阐明、举例说明 （这样理解这个单词：il-lustr-ate 表示"光泽＋动词词尾"，把光线投放到所有模糊的甚至黑暗的、令人看不到的事物或概念上，这样就将原本模糊不清的东西看得清楚明白，引申为"阐明"。）
minimum	[ˈminiməm] *adj.* 最低的、最小的 （前文提到过 mini- 表示"小、迷你"，这个单词也是由其而来，那么其反义词"最高的、最大的"又对应什么单词呢？ Right, maximu!）
blueprint	[ˈbluːˌprint] *n.* 蓝图、设计图、计划
delinquency	[diˈliŋkwənsi] *n.* 违法行为、不良行为
threefold	[ˈθriːfəuld] *adj.* 三重的、有三部分的 （fold 的基本含义是"折叠"，那么 threefold 就表示"折成三个部分的"，同样要表达"折成两个部分的/两重的"可以用 twofold。）
vandalism	[ˈvændəliz(ə)m] *n.* 故意毁坏文物的行为、破坏他人（或公共）财产的行为
initiative	[iˈniʃiətiv] *n.* 倡议、主动的行动 （init- 表示"开始、最初"，所以这个单词表示的是"第一个提出做某事的想法"。相关单词：initial 一般用作形容词，表示"最初的、开始的"；initiate 是动词，表示"使…开始、发动"。）

重点词汇回顾 ＋ 同义词扩充

bully --- terrorize, torment, frighten, persecute
verbal --- oral, colloquial, spoken, vocal, vocalized
abuse --- mistreatment, ill-treatment, cruelty, maltreatment
entail --- require, demand, need, necessitate
correspond --- agree, match, link, parallel
prevalent --- predominant, dominant, prevailing, ubiquitous, rampant

outcome --- consequence, end result, upshot, aftermath
convict --- find guilty, imprison, sentence, condemn
manifest --- demonstrate, display, reveal, exhibit
oppression --- repression, domination, subjugation, coercion
humiliation --- disgrace, mortification, dishonour, degradation
amend --- alter, modify, revise, improve, correct
explicit --- clear, overt, unambiguous, unequivocal, perspicuous
intervention --- interference, intrusion, mediation, intermediation
formulation --- design, construction, origination, devising
conceive --- envisage, visualize, envision, picture
illustrate --- elucidate, clarify, illuminate, point out
minimum --- smallest, minutest, slightest, tiniest
blueprint --- plan, scheme, outline, draft
vandalism --- damage, destruction, wreckage
initiative --- plan, proposal, project, scheme



Exercise 7

WHY PAGODAS DON'T FALL DOWN



Visitors to Kyoto and Nara, Japan's ancient capitals, invariably retain in their memories the evocative silhouette of a wooden pagoda — at times towering gracefully above the tiled rooftops of an old neighborhood, at times rising abruptly from the midst of a huddle of modern buildings. Most people familiar with the Kansai region will know the stately five-story pagoda of Kyoto's Toji temple, clearly visible from the Shinkansen bullet train, or the pagoda of Nara's Kofukuji, standing at the edge of Sarusawa Pond.

At 55 metres in height, the pagoda of Toji is the tallest such structure in Japan. It is far from the tallest pagoda ever built, however. The octagonal nine-story pagoda of Kyoto's Hoshoji was 83 metres tall, and the seven-story pagoda of Shokokuji, also in Kyoto, is said to have risen a full 108 metres. These towering structures, along with many other wooden pagodas built over the centuries, were destroyed by fire — generally either struck by lightning or caught in the crossfire of civil war.

Because of their wood construction, Japan's pagodas have always been extremely vulnerable to fire. At the same time, these tall, slender towers, built of interlocking posts and beams, are so resistant to earthquakes and typhoons that Japan's long architectural history records only a very few instances of their collapsing. Some 1,300 years after it was built, the five-story pagoda of Horyuji in Nara, recently added to UNESCO's "world heritage" list of cultural assets, shows not the slightest sign of instability.

Although built primarily of wood, pagodas are by no means lightweight structures. Like most traditional wood-frame architecture in Japan, they display wide eaves, giving considerable prominence to the tiled roof. If we compare the charming octagonal Yumedono, or "Dream Hall" of Horyuji with the octagonal pagoda of Fogongsi temple in China's Shansi Province, the difference is instructive: The eave's overhang of the Yumedono is 3 metres, more than one-fourth the building's total diameter of 11 metres. The pagoda of Fogongsi, which measures 29 metres across, has an overhang of only 2.5 metres — less than one-tenth the building's diameter. The jutting eaves of Japan's wooden pagodas lend a powerful rhythm to their silhouette, but their purpose is by no means solely aesthetic. A wide overhang means a larger roof relative to the rest of the structure. The large roof, consisting of clay and tiles laid on top of wood rafters, is extremely heavy. A heavy roof relative to the size of the building is one of the main characteristics of traditional Japanese wood architecture. With five such overhanging roofs, a five-story pagoda is a heavy structure indeed.

Why such pagodas, despite their height and weight, have remained upright and intact through numerous earthquakes and typhoons is something that no one has been able to explain satisfactorily from the standpoint of modern architectonics. This is because building science evolved in the West as a discipline dealing with the structural mechanics of rigid bodies, that is, buildings of stone, brick, or concrete. In the article that follows, architect Ueda Atsushi elucidates the ingenious techniques by

which the Japanese of earlier times built their pagodas to withstand even the strongest winds and earthquakes.

Of course, high towers have been built in the West ever since the Middle Ages. In all cases, however, the material is masonry — stones or bricks joined to form a single mass of wall capable of withstanding this or that impact from without. In the case of Japan's wooden pagodas, however, each story is structurally independent.

Each story of the pagoda is basically a square box with no bottom, built around twelve outer pillars, or gawabashira. The pagoda as a whole is, in essence, five stacked boxes. Since each story is smaller than the one beneath it, the placement of the gawabashira moves inward as one proceeds up the pagoda, meaning that horizontal beams are needed to support the gawabashira of each story above the first. In fact, these pillars rest on horizontal bases, which in turn are supported by taruki — slanting beams that run from the inside of the structure diagonally downward to the outside, where they support the eaves. The weight of the upper story, pushing down on the inner ends of the taruki, would cause the outer ends to rise if there were no counterweight. The heavy tiled roof of the eaves performs precisely this function. In short, the taruki functions as a lever arm, while the top of the gawabashira serves as the fulcrum. The story above bears down on the inner end of the lever, and the overhanging roof balances this load at the outer end. Or, to put it another way, the heavy eaves are in effect sustained by the story above. When one reaches the uppermost level, of course, there is no story above to counterbalance the overhang. Here, however, the tall copper or iron spire, or finial, performs that function. The finial of the Horyuji pagoda, we are told, weighs a full three tons.

Ueda explains in detail how this lever construction ensures that, during typhoons and earthquakes, pagodas swing and sway but almost never collapse. Built not to resist the forces of nature head-on but to accept and absorb their impact, pagodas epitomize the ingenuity of traditional Japanese wood architecture. This solution to the problem of structural stability could be said to manifest the Japanese approach to nature — not only to observe it carefully but also to learn from it and coexist harmoniously with it.

Ueda's essay concludes with a discussion of the central pillar, or shinbashira, a feature absent in the wood pagodas extant in China, where the form originated, but present in virtually all Japanese pagodas. Ueda's theory regarding the changing religious and structural significance of this basically free-standing (or hanging) pillar provides much food for thought on the dynamics of Japan's adoption and transformation of mainland culture.

Nowadays, in Central Tokyo where they fear a giant earthquake might strike in the near future, Mitsubishi is going to be one of the first companies to build a skyscraper that owes its modern design to the ancient pagoda. Its impressive 37 stories will stretch 180 metres into the skyline, but the building will be supported from within by the central column borrowed from the ancient pagoda. The building will have four huge shafts at each corner and will be stabilised by a huge central pillar standing in the centre. The central column will be attached to the four steel supports by a softer steel, which will allow the central column to move about and when the building shakes, the central column will provide the extra strength and stability which will help to absorb the shock.

--- Adapted from: BBC-Online;
Nishioka Tsunekazu, Ki ni manabe (The Lessons of Wood)

Questions 1 – 9

On your answer sheet please write

TRUE	*if the statement is true*
FALSE	*if the statement is false*
NOT GIVEN	*if the information is not given in the passage.*

1 Thanks to their wood construction, Japan's pagodas have generally been susceptible to earthquakes.

2 Japan's pagodas are much heavier than those of China.

3 Compared with Fogongsi temple, the octagonal Yumedono has wider eaves.

4 The jutting eaves make Japan's wooden pagodas more beautiful than their China's counterparts.

5 The structural mechanics of modern architectonics in the West does not investigate yielding bodies.

6 The weight of the eaves of Japan's pagoda is supported by the upper story.

7 Japan's pagodas were built to oppose the impact of nature forces in the front.

8 According to Ueda, some construction skill of Japan's pagodas was borrowed from China.

9 Mitsubishi is the first company to build a skyscraper in Central Tokyo, the design of which stems from the ancient pagoda.

IELTS 大虾必备

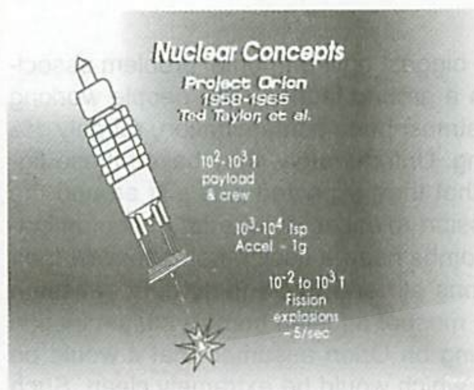
pagoda	[pə'gəudə] *n.* 宝塔、宝塔式建筑物
invariably	[in'vɛəriəbli] *adv.* 总是、不变地 （相关词形变化：invariable, variable, various, varied; variety）
evocative	[i'vɔkətiv] *adj.* 引起…的、有能力唤起的 （相应词形变化：evoke, evoking；字根 vok/voc 表示“喊”，所以动词 evoke 的基本含义是“喊出…、呼唤出…”，引申为“引起、唤起”。）
tower	['tauə] *vi.* （常与 above 或 up 连用）高耸、屹立
crossfire	['krɔsfaiə] *n.* 交叉火力、困境 （显然由 cross-fire 这两部分构成，基本含义“火力交叉”一目了然，而任何人处于敌对双方火力交叉的区域都会觉得自己非常 helpless，向哪边走都是死路一条，因此这个单词的引申意义为“困境”。）
vulnerable	['vʌlnərəbl] *adj.* 易受攻击的；脆弱的、敏感的
slender	['slendə] *adj.* 苗条的、修长的
collapse	[kə'læps] *vi.* 倒塌、坍塌
prominence	['prɔminəns] *n.* 突出的部分；显著、杰出 （形容词：prominent。pro- 表示“向前”，minent 表示“伸出”，因此这个单词的基本含义是“向前伸出”，指“凸出”，进而引申为“突出”，由此得到现在的含义。这里使用的是名词形式。）
instructive	[in'strʌktiv] *adj.* 有教育意义的、有启发的
solely	['səuli] *adv.* 完全地、独有地
evolve	[i'vɔlv] *vi.* 逐渐发展、演变 （相应词形变化：evolution, evolving）
rigid	['ridʒid] *adj.* 坚硬的、刚性的、不可弯曲的
elucidate	[i'lju:sideit] *vt.* 阐明、说明 （相关词汇：elucidation; lucid *adj.* 明晰的）
ingenious	[in'dʒi:njəs] *adj.* 有独创性的、精致的 （名词：ingenuity）
pillar	['pilə] *n.* 【建筑】柱子、栋梁
proceed	[prə'si:d] *vi.* （被打断后）继续进行
horizontal	[ˌhɔri'zɔntl] *adj.* 水平的 （反义词：vertical *adj.* 垂直的）
slanting	['sla:ntiŋ] *adj.* 倾斜的、歪斜的
counterweight	['kauntəweit] *n.* 平衡重量、平衡物
counterbalance	[ˌkauntə'bæləns] *vt.* 使平衡、抵销
spire	['spaiə] *n.* 塔顶、尖顶 （英国名校牛津大学 Oxford University 被俗称为学术界里的“梦幻尖塔”Dream Spire。）
epitomize	[i'pitəmaiz] *vt.* 代表、是…的典型范例 （相关词汇：epitome, epitomist）
dynamics	[dai'næmiks] *n.* 原动力；任何事物的成长、变迁发展史

重点词汇回顾 + 同义词扩充

invariably --- always, unvaryingly, regularly, customarily, unchangeably
evocative --- reminiscent, suggestive
vulnerable --- susceptible, weak, defenseless, helpless
slender --- slim, trim, willowy, svelte
prominence --- importance, distinction, eminence
evolve --- progress, advance, develop
rigid --- unbending, inflexible, stiff, firm
elucidate --- explain, clarify, expound, illuminate, manifest, interpret
counterbalance --- offset, balance, counterweigh
epitomize --- typify, characterize, exemplify, embody, symbolize

Exercise 8

The Orion Spacecraft



One topic that is sometimes mentioned in alternate histories of the 20th century is Orion. Orion was a spacecraft propulsion concept first thought of in the US of the 1950s, which would drive a spaceship by having it pushed by the shock wave of exploding nuclear bombs. The singular benefit of the Orion concept is that such an engine would produce a large amount of useful propulsive energy, allowing the craft to achieve much higher velocities than a conventional rocket with a given amount of fuel. An Orion spacecraft could thus afford to devote a much smaller portion of its total mass to fuel than a conventional rocket, and more to payload and the spacecraft systems. Its benefits would be that Orion spacecraft could carry very large payloads into orbit, or when loaded with fuel could travel interplanetary distances much more quickly than conventional rockets. Since the spacecraft would not have to be almost entirely fuel, an Orion would not need to use the sort of very expensive lightweight components needed by conventional rockets.

For these reasons, many people see the Orion system as a sort of missed glory of the space program, which could have allowed fast, cheap, and massive space travel decades ago. Many alternate history scenarios have been presented in which an Orion is constructed fairly cheaply in the early days of space flight, and is used to dramatically increase human presence in space. Some of the more extreme advocates of the Orion system present it as the holy grail of space travel, which could have taken mankind into a new age of space travel in the 50s or 60s were it not for misplaced fears about nuclear technology. Unfortunately, the reality of the situation was rather different. Not only did the Orion propulsion system have a great many flaws, but its advocates have tended to dramatically overstate its potential benefits.

The origin of the Orion idea was in a classified 1955 paper by Stanislaw Ulam and Cornelius Everett. It involved a spacecraft with a large pusher plate connected to its aft end by shock absorbers. The craft would periodically eject nuclear bombs behind itself, followed by disks of a solid propellant material. The bombs would explode, turning the disk of material into a plasma which would hit the pusher plate and thus propel the craft. Project Orion was driven by Theodore Taylor, and Freeman Dyson was heavily involved. Taylor modified Ulam's idea to combine the bomb and propulsion mass into a single unit. The propulsion mass was to be a plastic, similar to styrofoam. Such materials are good at absorbing the neutrons released by a nuclear explosion, and break down into lightweight atoms that transform most absorbed heat into kinetic energy.

Tayler's original proposal was for a vehicle 16 stories high and with a pusher plate 135 feet in diameter. The launch pad would have consisted of eight stabilization towers, each 250 feet high. It was proposed to man the craft with a crew of 150. The original cost estimate for the construction of this craft, from Dyson, was $100 million per year for 12 years. In 1964, aspects of the project were finally declassified, a year after the nuclear test ban treaty made its launch technically illegal. The signing of the treaty did not actually result in the project being cancelled, but eventually NASA made its decision to cut all funding to the project and the Air Force then announced that it would not fund the project any further without NASA contributions.

That perhaps was the best news at that time. The biggest environmental problem associated with Orion is radioactive contamination from a ground launch. The people working on Orion produced some very rosy estimates of atmospheric contamination, roughly 1% of that produced by all atmospheric nuclear testing. Unfortunately, they based these figures on fission-free fusion bombs, a technology that they expected was just around the corner but which turned out not to be. Nuclear fission releases quite a lot of contamination compared with nuclear fusion. Since fusion bombs need a fission bomb to start their explosion, this means that actual nuclear weapons all tend to be fairly dirty. A fission bomb is nearly as dirty as a fusion bomb because most of a fusion bomb's contamination comes from its fission "trigger". The people working on Orion assumed that it would be able to use fusion bombs without a fission trigger, which would be extremely clean. Such a technology did not, however, arrive like they expected it would.

This means that their original estimates of Orion contamination were off by an extraordinary amount. The launch of an actual Orion based on fission bombs would involve more than a megaton of fission explosions in the atmosphere, from perhaps 350 fission bombs (many would have an artificially reduced yield, but that doesn't reduce the amount of radioactive plutonium needed for them). While most of the explosions would not be near the ground and thus would not create direct fallout, the radioactive remains of the bombs themselves would be spread across the Earth.

Orion's side effects would not be limited to fallout, they would also include EMP and X-rays. EMP, or Electro-Magnetic Pulse, is essentially a powerful charge differential that will destroy nearby electronics, unless they are specially shielded. It is produced by explosions at ground level and in the stratosphere. While Orion's small fission bombs would not produce large amounts of EMP, they would produce some of it especially while passing through the stratosphere.

X-rays are even more destructive. They are absorbed effectively in the atmosphere, but travel long distances in space. The nuclear explosions in space created by an Orion spacecraft would release large amounts of X-rays. The effect of those X-rays would be to cause severe damage, even destruction, to the electronics of anything else in space within a significant distance of the spacecraft (up to thousands of miles or more). When Orion was originally proposed, there was very little in space. Within a decade, however, satellites were already beginning to appear. Many of those satellites would be destroyed by operating an Orion in Earth orbit. If an Orion were launched today, it would cause tens of billions of dollars in damage to commercial and military satellites from many countries.

--- *Adapted from: alternatehistory.com*

Questions 1 – 10

On your answer sheet please write

YES	*if the statement agrees with the writer*
NO	*if the statement contradicts the writer*
NOT GIVEN	*if there is no information about this in the passage.*

1 Compared with conventional fuel, the nuclear fuel could save space for an Orion.

2 The cost of a conventional rocket is more expensive than that of an Orion.

3 Some extreme advocates of the Orion believed that the fears about nuclear technology were not necessary.

4 Theodore Taylor was the leader of project Orion.

5 Dyson estimated that the original cost for the craft was $1.2 billion.

6 The nuclear test ban treaty made the project Orion being abolished.

7 The nuclear fission bomb releases quite a lot of contamination compared with the nuclear fusion bomb.

8 EMP is the biggest environmental problem associated with Orion.

9 X-rays can damage the electronics in far more distance than EMP can.

10 X-rays produced by an Orion would damage the existing satellites.

IELTS 大虾必备

spacecraft	['speiskra:ft] *n.* 太空船、宇宙飞船
alternate	[ɔ:l'tə:nit] *adj.* 交替的、轮流的 （动词形式：alter）
propulsion	[prə'pʌlʃən] *n.* 推进（力） （形容词形式：propulsive 表示"推进的、有推进力的"。）
velocity	[vi'lɔsiti] *n.* 速度、速率 （veloc- 表示"快速、迅速"，这里加上 ity 这个名词后缀，表示"速度、速率"。那么 veloc-imeter 表示"快速、迅速+仪表"，表示"速度计、速度表"。）
conventional	[kən'venʃənl] *adj.* 传统的、常规的 （名词形式：convention）
rocket	['rɔkit] *n.* 火箭 （用作动词时表示"飞速上升"，这和火箭发射时的情形不可分割。）
payload	['pei,ləud] *n.* 【空】（火箭的）有效载重、弹头
orbit	['ɔ:bit] *n.* 轨道
interplanetary	[,intə(:)'plænitəri] *adj.* 行星间的 （international 为什么表示"国际的"？所谓国际的指的就是"国家与国家之间的"，所以前缀 inter- 表示"多者之间相互之间的"，那么这里的 inter-planet-ary 可以理解为"多者之间+行星+形容词后缀"，表示"行星与行星之间的"。）
glory	['glɔ:ri] *n.* 辉煌、光荣 （形容词形式：glorious）
scenario	[si'na:riəu] *n.* 设想、方案 （来自意大利语 *scena*，相当于英语单词 scene，由"戏剧表演的一幕场景"之意引申而来。）
flaw	[flɔ:] *n.* 缺点、瑕疵
overstate	[,əuvə'steit] *vt.* 夸大地叙述、夸张 （有了前文多处讲解前缀的基础，想一想 overstate 的反义词是什么样的呢？understate 就搞定啦！）
classified	['klæsifaid] *adj.* 归入密级的、保密的 （动词形式：classify。请在本文下面的阅读中 locate 该动词的反义词。对！就是 declassify。那么这里的 classified 的反义词即为 declassified。）
eject	[i:'dʒekt] *vt.* 喷射、喷出、投出 （名词形式：ejection）
propellant	[prə'pelənt] *adj.* 推进的 （动词形式就是下边出现的 propel，表示"推进、驱使"。）
modify	['mɔdifai] *vt.* 修改、更改 （前面刚见过它的名词形式 modification。）
diameter	[dai'æmitə] *n.* 直径 （dia- 表示"穿过、通过"，-meter 表示"测量、计量"。穿过圆的圆心并且可以利用其测量与圆相关的一些数据，指"直径"。"半径"可以用 semi-diameter，表示"直径的一半"，前缀 semi- 表示"一半"。）
launch pad	发射台

man	[mæn] *vt.* 给…配备人员
radioactive	[ˌreidiəu'æktiv] *adj.* 放射性的、有辐射能的
fission	['fiʃən] *n.* 裂变、分裂 （fiss- 来自拉丁语，表示 split，即"分裂、裂开"。由此，fissure 是名词，表示"裂沟、裂缝"；fissile 是形容词，表示"分裂性的、可分裂的"。）
trigger	['trigə] *n.* 起爆弹、引爆器、扳机 （来自荷兰语，基本含义为"拉动、拉"。）
fallout	['fɔːlaut] *n.* 放射性坠尘、污染性坠尘
side effect	副作用
shield	[ʃiːld] *vt.* 保护、防御 （最初用作名词表示"用作防护的一块板"。）

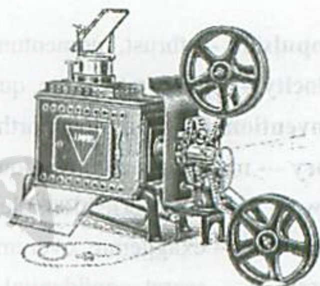
重点词汇回顾 + 同义词扩充

propulsion --- thrust, momentum, forward motion, impulsion, impetus
velocity --- speed, rate, haste, quickness
conventional --- traditional, orthodox, conservative, established
glory --- magnificence, splendour, grandeur
flaw --- defect, imperfection, blemish
overstate --- exaggerate, overemphasize, overstress
classified --- secret, confidential, top secret, off the record
eject --- discharge, disgorge, emit
propel --- thrust, impel, boost, force, drive
fission --- breaking up, separation, splitting, division
shield --- protect, guard, defend, shelter, safeguard

SENTENCE COMPLETION/ SHORT ANSWER QUESTIONS

Exercise 1

Past and Present of Movie Industry



The beginnings of the movie industry can be traced back to the 1800's, developing much later than other art forms, such as music and painting. The first motion picture exhibition, which opened in the early 1900's, was called the "nickelodeon theater". Admission was only 5 cents, and this attracted a large audience to watch movies as a source of entertainment. These early theaters laid the foundation for the movie industry's expansion and growing popularity.

In the early stages of the movie industry, the majority of the nation's movie houses were situated in small towns and city neighbourhoods. As in any industry, there were major players that were not only responsible for exhibiting films, but were also leaders in producing and distributing them. Some of the key companies included Paramount, Warner Bros., R.K.O., Loews (MGM), and Fox (which later became Twentieth Century Fox). It is surprising to note that although these companies were considered the crème de la crème of the movie industry, they only dominated approximately 20% of the country's movie theaters. This meant that numerous other smaller theaters had substantial market share in the movie industry as well. A few of the smaller independently owned theaters decided to consolidate during the 1930's to gain more power in dealing with film distributors, but the idea of consolidating was not fully realized until the invention of the television.

Although only 14,000 homes owned a television during the 1940's, it still had a negative impact on movie houses across the country. As more households bought television sets, ticket sales decreased substantially. In an effort to drum up revenue during the 1950's, the Cinerama (which included a curved screen wrapped around the entire theater to "engulf" the audience) and 3-D movies were introduced. Over time, however, the increasing popularity of the television ultimately dominated. By the 1960's, movie theaters had lost 60% of their average weekly attendance and more than half of the 20,000 theaters that began operations in the 1940's were forced to close down. These losses became detrimental to the movie industry due to the inability to recover funds invested in the theater house and other sunk costs.

By the 1970's, the movie industry was profiting again. Instead of the television acting as a substitute form of entertainment, it was used as a national advertising medium that promoted weekly

movies and show times. Within the next few years, multi-screen operations in suburban shopping malls were built, indicating that these publicizing techniques were a great success.

In the following decades, many theater companies established themselves in the growing industry. One of the prominent companies on the East Coast is Loews Cineplex Entertainment Corporation. This corporation is the result from a merger between Sony Corporation's Loews Theaters Exhibition Group and Cineplex Odeon Corporation.

Loews Theaters was the first commercial motion picture exhibitor in North America. Its operations began in 1904, when Marcus Loew established a "nickelodeon" in a rented room above a penny arcade store in Cincinnati, Ohio. In 1924, he merged Metro, a silent movie production company, with The Goldwyn Pictures Corporation and Louis B. Mayer Pictures to form, Metro Goldwyn Mayer (MGM). After the merger, Loews showed films produced by MGM until 1959, when an antitrust ruling forced studios to give up control of theaters, constricting their focus to production of films. Following this merger, Loews changed owners twice before Sony Corporation acquired it in 1989.

The other counterpart in this merger is Cineplex Odeon, based in Toronto, Canada. The firm, founded in 1979, was an integrated entertainment company that became involved in exhibition and distribution of motion pictures. Besides distribution of motion pictures, it also owned other operations including a major film processing laboratory and a post-production sound facility. Garth Drabinsky started Cineplex with an 18-screen theater in the basement of a Toronto shopping centre. It performed well, but also incurred debt, which led to The Bronfman Group investing in the company. Cineplex then bought Canadian Odeon theaters in 1985, changing its name to Cineplex Odeon. Within the next few years, Cineplex Odeon encountered financial difficulties. By 1996, it sustained net losses totaling $317 million dollars of long-term debt, as report by the Securities and Exchange Commission filings. In fact, Allen Karp (CEO of Cineplex Odeon) stated that the firm "was certainly a candidate for bankruptcy". The distressed company was in dire need of financial assistance and managed to stay afloat through a merger with the financially stable Sony's Loews Theater Exhibition group.

The proposed merger was horizontal in nature and was expected to bring forth many benefits to Sony and Cineplex Odeon. Realizing that Cineplex Odeon had undervalued assets that were reflected in their low stock prices, Sony Corporation agreed to alleviate Cineplex Odeon from the heavy debt, which was leftover from former management. According to Lawrence Ruisi, who was appointed the CEO of Loews Cineplex Entertainment, the combination of the companies would produce an establishment with an easily manageable debt load, giving it "capacity for growth". Furthermore, Loews Cineplex would be financially stronger than each of the separate companies. Sony was also expected to gain long-term advantages from the merger. At that time, it had only 1,000 screens in 135 theaters in the U.S., while Cineplex had 1,600 screens in the U.S. and Canada. Therefore, if the merger took place, Sony would increase its market share in key cities, including New York, Los Angeles, Chicago, Boston, Seattle, and Houston. Together, the companies would create strong competition for Carmike Cinemas Inc., which was known as the "Wal-Mart of the theater industry", operating 500 theaters in small U.S. towns, and also acting as the primary competition for Loews Cineplex.

--- *Adapted from: beatl.barnard.columbia.edu*

Questions 1 – 8

On the basis of the article provided, fill in each blank with ***NO MORE THAN THREE WORDS.***

The word … [1] … was used in the beginning of the article to convey the meaning of a fee paid for the entrance to a certain place.

When the movie industry was in its early stage of development, it was the … [2] … that occupied the dominant place.

TV's being utilized as … [3] … changed its role of a substitute form of entertainment in the 1970s.

The … [4] … finally facilitated the fusion of various small-scale independently owned theaters.

Allen Karp remarked that Cineplex Odeon was "a candidate for bankruptcy", which means that in his view, only … [5] … could revitalize Cineplex Odeon.

The benefits of the merger between Sony Corporation's Loews Theaters Exhibition Group and Cineplex Odeon Corporation are threefold: relieve Cineplex Odeon from … [6] … ; boost Sony Corporation's … [7] … in U.S. metropolitans; once the merger is complete, … [8] … would face a strong competitor.

IELTS 大虾必备

admission [əd'miʃən] *n.* 入场费、门票钱
(动词形式：admit。名词 admission 除了可以表示“入学、入会”等概念外，还有上述的含义。)

lay the foundation for 为…打下基础

distribute [dis'tribju:t] *vt.* 分配、散发
(可以简单地这样理解：dis-tribute——dis- 表示“相反”，tribute 表示“地方向朝廷或中央首脑敬奉的贡品、贡物”，因此两部分合在一起构成的 distribute 表示“由中央分发下来”，而不是贡奉给中央，由此得到“分配、散发”的含义。)

substantial [səb'stænʃəl] *adj.* 很多的、大量的

consolidate [kən'sɔlideit] *vi.* 合并、统一
(名词形式：consolidation)

revenue ['revinju:] *n.* 总收入、财源

engulf [in'gʌlf] *vt.* 吞没、吞食

detrimental [,detri'mentl] *adj.* 有害的、伤害的
(通常构成的短语是 [be] detrimental to …，注意这里的 to 是介词。)

suburban [sə'bə:bən] *adj.* 郊区的、城郊的
(sub- 表示“次于、低于”，urban 本身是形容词，表示“城市的、都市的”，因此 suburban 表达上义。)

merger ['mə:dʒə] *n.* (企业等的)吞并、合并
(动词形式：merge)

antitrust [,ænti'trʌst] *adj.* 反托拉斯的、反垄断的
(显然 anti-trust 这个单词的两部分分别对应“反+托拉斯[即垄断]”。)

constrict [kən'strikt] *vt.* 约束、抑制
(相关单词：constriction *n.* --- constricting *adj.*)

incur [in'kə:] *vt.* 招致、惹起
(理解为 in-cur，cur 这个字根表示 run，即“跑”的意思，所以这个单词的根本意思是 run into，即“碰上、撞上”，现代英语里引申为上义。“碰上或撞上不好的事情”也就是“招致…的结果、惹起…的后果”。)

net loss 净亏损 (“纯收入、净收益”是 net proceeds。)

distressed [di'strest] *adj.* 痛苦的、忧虑的
(distress 既可以作名词又可以作动词。俗语“Two in distress makes sorrow less”指的是“如果两个人都很痛苦，那么相互倾诉一下或者不用倾诉，一方只要看到另一方的苦痛，就都不会觉得自己是世界上最倒霉的人，也就没那么烦啦。”)

dire ['daiə] *adj.* 迫切的、紧急的

afloat [ə'fləut] *adj.* 免于经济困难的、漂浮的
(float 是动词，表示“漂浮、浮动”。)

horizontal [,hɔri'zɔntl] *adj.* 水平的、地位相等的
(名词形式：horizon，表示“地平线、水平线”。该形容词的反义词为 vertical。)

alleviate	[ə'li:vieit] *vt.* 减轻（痛苦等）、缓和 （名词形式：alleviation。可以将这个单词的构成分成三部分 al-levi-ate，其核心部分 levi 表示“轻”，三部分放在一起表示“加强＋轻＋动词词尾”，所以该单词的基本含义是“使…变轻”，根据具体语境引申为上义。）
leftover	['left,əuvə] *n.* 剩余物、剩饭
primary	['praiməri] *adj.* 主要的、首要的

重点词汇回顾 ＋ 同义词扩充

admission --- entry fee, entrance fee, ticket price
distribute --- mete out, hand out, dole out, allocate, allot, issue
dominate --- dictate, govern, rule, lead
substantial --- considerable, ample, plentiful, abundant
consolidate --- combine, fuse, merge, amalgamate
revenue --- income, proceeds, profits, returns
engulf --- swallow up, surround, submerge, overwhelm
detrimental --- harmful, damaging, injurious, unfavourable
suburban --- outlying, peripheral, out-of-town
constrict --- restrict, constrain, restrain, limit, control
incur --- invite, meet with, encounter, suffer
distressed --- upset, troubled, miserable, anguished, tormented
dire --- appalling, frightful, terrible, dreadful
horizontal --- level, plane, flat, straight
alleviate --- lighten, ease, lessen, assuage, relieve
leftover --- remnant, remainder, residue, remains
primary --- principal, crucial, fundamental, essential

Exercise 2

Foreseeable Problems of Digital Television

In *Harry Potter and the Prisoner of Azkaban*, the young student wizard Harry Potter is pursued by a horde of creatures called Dementors. To make a long, well-plotted story far too short, a future version of Harry suddenly appears and waves his magic wand, reciting the spell "Expecto Petronum!" Thus Future Harry manages to scare away the Dementors, protecting the Harry of the present.

The transition from analog broadcast television to digital broadcast television (DTV), now an enshrined part of American broadcasting policy, faces its own set of Dementors — a horde of technical, legal, economic, and social problems. Taken together, the problems look as unbeatable as any monster. Making things worse, many factions with a stake in the outcome are at war over such issues as technology mandates, copyright protection, and fair use.

But what if we could somehow look back from the future to today's troubled present debate, wave our wands, and magically defeat the problems that bedevil the DTV transition? Such magic is beyond us mere muggles (as Harry's fellow wizards disparage non-magical humans). But it is possible to look back from the future we have long been imagining — one in which various consumer electronics and information technologies have converged, and in which the broadband Internet reaches every home. From there, we can come up with our own version of a magical solution.

It is fair to ask why we even need a solution, other than letting our DTV industrial policy collapse under the weight of its own mistakes. The short answer is this: There is much more than digital television at stake. Bad government actions in this sphere — and you can be sure that Congress and the Federal Communications Commission will act rather than refrain from acting — could permanently shoehorn part or all of the computer revolution under government-driven design control. Not only would this likely kill the dynamism of the information-technology sector, but it is unlikely to do much to protect copyright interests. Worse, by slowing technical innovation, the Hollywood studios may end up shooting themselves in the foot, since digital innovations have both lowered production costs and let new features and effects be included in modern TV and movies.

Before we can outline a solution, we have to take a look at the problems. A list follows of the issues each set of stakeholders sees at the center of the transition to DTV. Problems for content companies. Motion picture studios, TV networks, and other companies that produce, publish, or distribute content worry that DTV will allow viewers to record high-quality content, then recirculate it through the Internet or other media. Such copying could undermine the revenue potential of high-quality content, which otherwise could be resold to local broadcasters through syndication or repackaged as VHS tapes and DVDs for sale or rental.

Problems for hardware, software, and Internet companies. Many segments of these industries are also facing flattening sales. The sector as a whole is acutely aware that customers will reject new products that may be more limited than older ones in how they deal with both com-



mercial and user-generated content. The computer and software industries in particular take it as a given that consumers expect more and better functions and faster processing speeds. Worse yet, the content industry's proposal has to make many classes of hardware and software "untamperable "— that is, difficult to modify, or "closed". Yet open platforms such as the PC and the Internet have by their very openness encouraged innovation. The results include the Internet as we now know it, the World Wide Web, Linux and other open source software, and graphical browsers. Interestingly, rapid development in this sector has also produced technologies that make filmmaking, music recording, and other forms of content generation much cheaper and more accessible than they used to be. For Internet companies, any regulatory obligation to monitor for copyrighted content signifies a substantial redesign of the Net as it has existed and grown since its beginnings more than three decades ago.

Problems for Congress. For a number of policy reasons — the perceived benefit to the public, a purportedly more efficient use of the spectrum, higher-quality broadcasts — Congress has required television broadcasters to move from analog to digital transmissions. It established the year 2006 as a nominal deadline for the shift, assuming that the general public would see the value of DTV and buy new television sets, with digital tuners, to take advantage of these features. In effect, Congress "loaned" broadcasters extra spectrum to develop DTV (and the DTV audience), but the loan has not produced the expected consumer buy-in. Making things still more problematic, Congress based its tax and budgeting decisions for the next few years on the assumption that the original "analog spectrum" would be returned. It could then be used for public service purposes (public safety, a larger unlicensed band) or auctioned off, with the latter plan generating perhaps tens of billions of dollars for the government. Problems for consumer electronics companies. Quite rationally, the consumer electronics sector likes selling high-margin, high-quality, high-resolution TV display devices. It also knows that just about all of its current customer base for such devices gets its content from cable, satellite, or DVD, and scarcely ever from over-the-air digital broadcasting. Meanwhile, one looming problem has not even begun to be addressed: In-the-field tests of television sets equipped with digital tuners suggest that DTV reception — at least under the technical standard digital broadcasters are currently required to use — is not as reliable as analog broadcast reception. This is not the kind of policy that inspires people to buy consumer electronics. Problems for broadcasters. Broadcasters are not pleased that digital transmissions are less reliably received than analog broadcasts. Nor are they happy that the bill for "loaned" spectrum will soon come due, especially given most Americans' unwillingness to buy DTV products. If the transition is imposed on the scheduled date, there will be an abrupt decline in the advertising audience base for their broadcasts — especially when compared to those of cable and satellite. Historically, one argument for the transition to DTV has been to enable broadcasters to compete against the heretofore more reliable signal quality of cable- and satellite-delivered TV content. It would be ironic if a policy designed to preserve free broadcast TV were in fact to hasten its end. Problems for consumers. By voting with their wallets, most consumers have demonstrated that they do not yet value DTV's benefits enough to invest seriously in new equipment for it. Consumers who rely primarily on over-the-air broadcast signals may find that their new digital TV sets receive broadcast content less reliably than their old analog sets did. This federally compelled downgrade in reception reliability will likely make a significant number of broadcast-reliant voters unhappy.

--- *Adapted from: Reason, April, 2003, by Mike Godwin*

Questions 1 – 7

*According to the above article, fill in each blank with **NO MORE THAN THREE WORDS**.*

… [1] … is the word the author quoted from fellow wizards of Harry Potter's when they manifest their derision of those possessing no magical power.

Bad government actions in tackling DTV transition will possibly result in the … [2] … of the IT sector and also be harmful to the protection of … [3] … .

According to the author, the transition to DTV incurs various problems, including problems for … [4] … , for hardware, software, and Internet companies, for … [5] …, for … [6] … , for … [7] … , and for consumers.

IELTS 大虾必备

foreseeable [fɔːˈsiːəbl] *adj.* 可预知的、能预测的
（fore- 表示"在前、在先"，foresee 表示"看到前边、即未来的事情，预见、预知"，所以这里的形容词 foreseeable 得到上义。）

wizard [ˈwizəd] *n.* 术士、奇才、男巫

dement [diˈment] *vt.* 使发狂
（de- 表示"离开、除去"，而 ment 表示 mind，指"头脑、理智"，所以 dement 表示"失去理智、没有头脑、心智不健全"，进一步得来上义。
现在再回头看比较简单的单词 mental，就知道它其实是 mind 的形容词形式。
那么，单词 mentor 又表示什么呢？这里要提到著名的荷马 Homer 史诗《奥德塞》*Odyssey*。Odysseus 奥德修斯前往特洛伊 Troy 参战期间，将家人交托给了朋友孟托 Mentor 照顾，他尤其要负责保护和教育奥德修斯的儿子 Telemachus 忒勒马科斯，1750 年这个由希腊人名转变来的单词正式进入英语，表示"导师、贤明的顾问"。）

spell [spel] *n.* 咒语、符咒

enshrine [inˈʃrain] *vt.* 把…放入殿内祀奉、把…奉为神圣
（通过这个的拼写，可以理解为 en-shrine，即 put something into a shrine，表示"把某物放入神祠、神殿里"，进而得到上义。）

faction [ˈfækʃən] *n.* 派别、派系

mandate [ˈmændeit] *n.* 委托、授权

disparage [disˈpæridʒ] *vt.* 毁谤、说…坏话
（理解为 dis-parage——"除去、驱逐、分离＋出身望族、出身高贵"，基本意思为"从贵族里除名"，引申为这里的含义。名词形式：disparagement）

converge [kənˈvəːdʒ] *vi.* 聚合、集中于一点
（con-verge——"共同、一起＋弯曲、趋向"，可以将这个单词简单地解释为 lean together，即"趋于会合于一点"。）

sphere [sfiə] *n.* 范围、领域

shoehorn [ˈʃuːhɔːn] *vt.* 把…硬塞或硬挤进去
（shoehorn 原本是名词，表示"穿鞋，尤其是皮鞋时有些人要用的鞋拔子"，活用成动词后形象地表达了上义。）

stakeholder [ˈsteikhəuldə] *n.* 股东、享有股份或利润的人
（名词 stake 可以表示"赌金"或"投资"等，所以这个单词的基本含义是"持有赌金的人"。投资股票也不失为一种赌博行为，进而得到"股东"的含义。）

recirculate [riˈsəːkjuleit] *vt.* 再通行、再流通
（re-circulate 对应"再＋流通"。名词形式：recirculation）

undermine [ˌʌndəˈmain] *vt.* 逐渐损害、破坏、削弱

acutely [əˈkjuːtli] *adv.* 剧烈地、明显地

given [ˈgivən] *n.* （推理过程中的）已知事物
（从动词 give 的过去分词转变而来，表示"已经给出的东东"。）

tamper [ˈtæmpə] *vt.* 篡改

platform [ˈplætfɔːm] *n.* 平台、公开发表议论的地方

perceive [pəˈsiːv] *vt.* 感知、察觉、意识到
（per-ceive 表示"完全、彻底＋拿住"，即"捕捉到了周遭发生的一切事情"，进而引申为上义。）

purportedly	[pəːˈpɔːtidli] *adv.* 据称 （动词形式：purport）
spectrum	[ˈspektrəm] *n.* 电磁波谱、光谱
nominal	[ˈnɔminl] *adj.* 名义上的、有名无实的 （nom- 表示 name"名字"，这里是它的形容词形式。）
deadline	[ˈdedlain] *n.* 限期、截止时间
auction	[ˈɔːkʃən] *vt.* 拍卖 （基本含义表示"增加"，参加拍卖活动一般都是越喊价钱越高，价钱呈增加趋势。）
margin	[ˈmaːdʒin] *n.* 利润（率）、盈利
loom	[luːm] *vi.* （坏事情）阴森地逼进、隐约地出现
ironic	[aiˈrɔnik] *adj.* 讽刺的、与期望或意图完全相反的 （名词形式：irony）
compel	[kəmˈpel] *vt.* 强迫、迫使
downgrade	[ˈdaungreid] *n.* 降格、降级 （反义词：upgrade）

重点词汇回顾 + 同义词扩充

spell --- incantation, invocation, charm
disparage --- belittle, mock, ridicule, scorn, sneer
converge --- come together, congregate, unite
sphere --- field, realm, scope, province, domain
sector --- division, subdivision, segment, area
undermine --- undercut, destabilize, weaken
acutely --- intensely, incredibly, exceedingly
tamper --- interfere, meddle, tinker
perceive --- feel, sense, notice, realize
purportedly --- professedly, allegedly, as rumour has it
nominal --- titular, supposed, so-called
loom --- impend, menace, threaten
compel --- force, coerce, oblige
downgrade --- demotion, relegation, reduction

Exercise 3

Marijuana



Smoking a couple of joints (cigarettes containing marijuana) is as bad for your lungs as consuming a whole packet of cigarettes, say the anti-dope brigade. Their opponents say smoking marijuana has never caused anyone to die from lung cancer. So, is marijuana smoke more or less dangerous than tobacco smoke?

The person to ask is Donald Tashkin, a lung expert at the University of California at Los Angeles. For the past 15 years, Tashkin's team has been keeping a close eye on the respiratory systems of more than 130 regular marijuana smokers, comparing them with groups of people who smoke either just tobacco, tobacco and marijuana, or nothing at all. It is the biggest study of its kind in the world. And the results so far suggest that in some respects, yes, marijuana is more dangerous than cigarettes. But in one important respect, joints may actually be better for you — especially if you are an athlete.

First, the bad news. While the cigarette smokers in the study were ploughing through 20 or more a day, the marijuana smokers seldom consumed more than four joints. Despite this, the marijuana smokers coughed and wheezed as much as the cigarette smokers. In both groups, about one in five people complained of coughing up phlegm and suffering bouts of bronchitis. And when it came to cellular damage to the lungs, there was also little to choose between them. Both groups had too many mucus-secreting cells lining their airways and too few hair cells, and both groups showed evidence of abnormalities in cell nuclei and changes in genes known to have an early role in the development of cancers.

The similarity may seem puzzling given that the marijuana smokers were consuming so much less plant material. But there are good reasons for it, says Tashkin. Joints yield up to three times the tar of cigarettes because they are more loosely packed and do not have filters. Marijuana smokers also inhale more deeply and hold their breath longer. Tashkin actually quantified this and found that the breath-holding

time was increased about fourfold, and that resulted in about a 40 per cent greater deposition of tar. Tashkin's final factor — contested by some researchers — is that marijuana smoke is richer in benzopyrene and other polycyclic aromatics known to trigger cancerous changes in cells.

So smoking marijuana can cause lung cancer, after all? Despite the gloomy cell biology, epidemiologists have so far failed to find a link between marijuana and serious lung diseases. That might be because there is not one. Or it might be because "the marijuana epidemic" (as Tashkin calls it) is still young and the people who started smoking in the 1960s have not reached an age when cancers become common.

Meanwhile, some researchers are worried about another aspect of marijuana smoke — its ability to interfere with immune cells that help to fight off lung infections. Tashkin's team has just discovered that immune cells isolated from the lungs of marijuana users are unusually bad at killing bacteria, 35 per cent worse, in fact, than similar cells taken from cigarette smokers. The marijuana-exposed cells were also below par at producing molecules needed to mount inflammatory responses. In normal marijuana smokers, the effects may be too slight to make much difference. Tashkin fears, however, that the same might not be true in people with AIDS, many of whom use cannabis to stimulate their appetites.

There is some good news, though, for dope-smoking cricketers and footballers: marijuana smoke will not lead to blocked airways or emphysema. Despite all the cellular changes noted by Tashkin's team, the researchers found that even heavy smoking of marijuana had no impact on any physical measure of lung function. In fact, among their subjects, smoking three joints per day caused no greater rate of decline in lung capacity and the ability to breathe than smoking no marijuana per day.

And the reason for this silver lining? It could well be back to those sluggish immune cells, speculates Tashkin: "If cannabis impairs the ability of immune cells to produce inflammatory cytokinins, you might be spared mucosal damage in peripheral airways."

--- *Adapted from: Newscientist*

Questions 1 – 5

Answer the questions using the words from the passage for each answer.

1 How long has Tashkin's team been investigating the impacts of marijuana and tobacco?

2 How many joints do most marijuana smokers consume per day?

3 What kind of damage caused by marijuana smoking is about the same as that of cigarette smoking?

4 Name three reasons why joints, despite containing less plant material, generate much more tar than cigarettes.

5 According to the Tashkin, what may disable heavy smoking of marijuana to affect any physical measure of lung function?

IELTS 大虾必备

marijuana	[ˌmæriju'a:nə] *n.* 【植】大麻 (大麻在西方国家的某些地区或者家庭里可以合法种植。留学生一定要当心。吸入大麻烟卷的烟气后几分钟就会产生安适、舒服、宁静的类似醉酒的感觉；会感到迷迷糊糊、昏昏沉沉，有在梦中的感觉；有时感到增强了对环境的知觉，视觉和听觉的敏锐感；觉到自己拥有了特别灵敏的顿悟能力。其他毒品如 opium "鸦片"，morphine "吗啡"，heroin "海洛因" 都来自植物 poppy "罂粟"。)
opponent	[ə'pəunənt] *n.* 对手、反对者 (前文提到过它的反义词 proponent。)
respiratory	[ris'paiərətəri] *adj.* 呼吸的、与呼吸有关的 (记得让你天天戴口罩 [respirator] 的 SARS 吗？ Severe Acute Respiratory Syndrome，意为 "严重的、急性的、呼吸系统综合病症"。)
athlete	['æθli:t] *n.* 运动员、运动选手 (形容词形式：athletic)
phlegm	[flem] *n.* 痰
bout	[baut] *n.* 一场、回合
bronchitis	[brɔŋ'kaitis] *n.* 【医】支气管炎
mucus	['mju:kəs] *n.* 黏液
secrete	[si'kri:t] *vt.* 【生理】分泌 (名词形式：secretion)
abnormality	[ˌæbnɔ:'mæliti] *n.* 异常 (形容词形式：abnormal，表示 "反常的、不正常的"，显然是在形容词 normal 前加上了 ab- 表否定意义。)
tar	[ta:] *n.* 焦油
filter	['filtə] *n.* 过滤器
inhale	[in'heil] *vi.* 吸气
deposition	[ˌdepə'ziʃən] *n.* 沉积
epidemic	[ˌepi'demik] *n.* 流行病
below par	在票面价值以下、在标准以下
inflammatory	[in'flæmətəri] *adj.* 【医】发炎的、引起炎症的；煽动性的；易燃的
silver lining	(痛苦、失望、或不幸中的) 一线希望 (或慰藉)
spare	[speə] *vt.* 赦免、免除
peripheral	[pə'rifərəl] *adj.* 外围的、边缘的、周围的

重点词汇回顾 + 同义词扩充

opponent --- adversary, foe, rival, antagonist

abnormality --- oddity, irregularity, anomaly, deviation

deposition --- accumulation, accretion, sedimentation, buildup

sluggish --- listless, lethargic, inactive, slothful

speculate --- contemplate, ponder, conjecture, surmise

spare --- free, release, pardon, forgive

peripheral --- marginal, fringe, bordering, outlying

PICTURE/FLOWCHART/TABLE

Exercise 1

The Oceanographer's Dream Ship

It is every oceanographer's dream start to the day. Get out of bed, slip on a pair of jeans and a T-shirt, then take a lift to the bottom of the sea. No wetsuits, no submersibles, no decompression tanks, just a permanent trapdoor to the ocean floor.

Nobody's throwing away their wetsuit just yet, but a non-profit group of maritime engineers called the Ocean Technology Foundation reckon they can make the dream come true within ten years. They're planning to build a vessel that will take scientists, divers, tourists or anyone else who'll pay, to the bottom of the sea with the minimum of fuss.

One plan is for a vessel called the Deep Water Flip Ship. On paper at least, this is a huge, tubular boat that measures 330 metres from bow to stern — longer than the Eiffel Tower. To get access to the seabed, the ship first sails to wherever it's needed and then performs an astounding manoeuvre. Three huge ballast tanks on the stern flood with water and the rear part of the ship plunges beneath the waves, pulling the vessel through a 90° flip. Once vertical, more than three-quarters of the ship is submerged while the front end, with its cabins, control rooms and helicopter landing pad, sits up above the water. Most of the equipment on board is designed to rotate so it stays the right way up throughout the flip.

The idea may sound preposterous, but a smaller craft that performs similar maritime gymnastics has been around for nearly 30 years. Dubbed FLIP, or Floating Instrument Platform, it's operated by the Scripps Institution of Oceanography in San Diego, California. FLIP looks like a regular ship with the stern chopped off and a 100-metre pipe welded in its place. The pipe is basically one big ballast tank that floods to make the ship tip over. Once submerged, the tank provides stability so that scientists can park the craft and get on with their experiments.

Besides being able to perform the same manoeuvre, the ship designed by the Ocean Technology Foundation would bear little resemblance to FLIP. For one thing, it's more than three times as long. What's more, its rear portion isn't just a ballast tank but is designed to deposit the researchers as close to the seabed as possible while keeping them at atmospheric pressure. To do this, the

hull is a sealed tube which, once flipped, turns into a lift shaft. Along the length of the shaft are laboratories linked to the surface by the lift and stairs.

The flipped ship could stay in one place for weeks or months at a stretch, stabilised by the submerged stern and the ship's propellers. And by varying the amount of water in its ballast tanks, the crew could control how much of the ship is submerged. The basic design has a depth range of 225 to 275 metres — enough to visit the deepest parts of the continental shelf. A wider range would be made possible by removing or adding segments to the hull, because this plan calls for the segments to be bolted together rather than welded. This would also mean specialised labs could be slotted in if need be. At first this would have to be done in dock, but it is hoped that it would eventually be possible at sea.

Pumping the water back out of the ballast tanks would right the craft. The experts estimate the manoeuvre would take around 12 hours, as would flipping from horizontal, but in an emergency the tanks could be blasted out with compressed air and the ship flipped in about a minute.

The flip ship, however, has its drawbacks. While cheaper than the previous type, it would still cost an estimated $200 million. And its depth range is limited. With these problems in mind, Clifford Ness, a retired Electric Boat submarine designer and a member of the Ocean Technology Foundation, came up with an alternative plan. Why not build a massive hinged arm with labs at the end that could be lowered like a penknife blade from the bottom of a ship?

Ness has been working on a plan to attach a 200-metre arm to a disused oil tanker. The appendage would be bolted to one end of the ship and housed in a hollowed-out compartment on the bottom. As with the flip design, the labs at the end of the arm would be designed to rotate, meaning they could be used at any angle. That would give the hinge ship more versatility than the flipper: the arm could be lowered to any depth down to 200 metres.

Economically, the arm also has the edge. While the flip ship would have to be built from scratch, the arm could be added to a converted oil tanker. Thanks to new regulations requiring the phasing out of single-hulled tankers in favour of stronger double-hulled ships, second-hand tankers are two a penny. Ness thinks one could be purchased and converted for around $60 million.

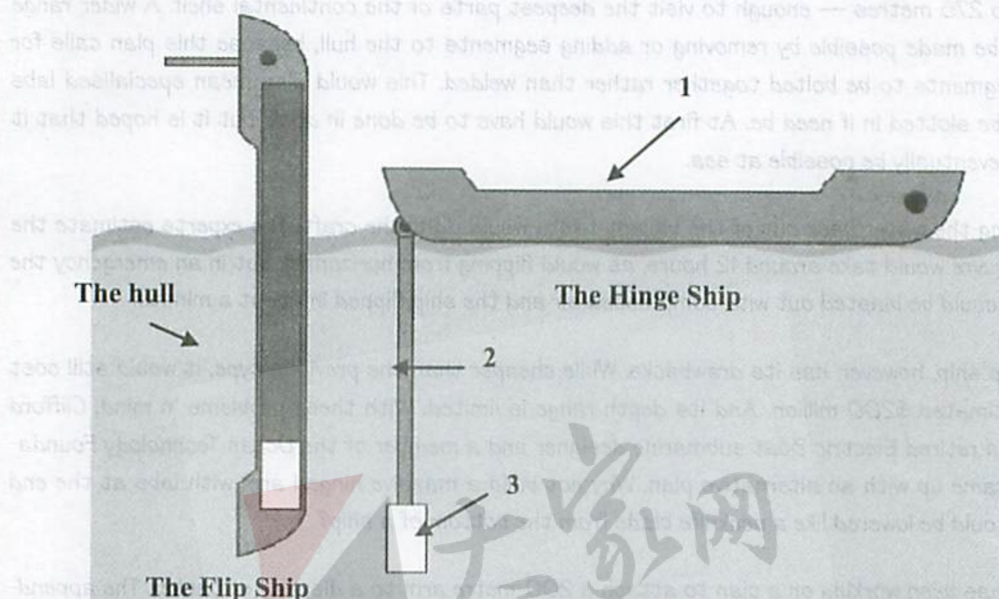
Details remain sketchy, but Ness envisages a lift running up and down the arm to ferry people and equipment to the labs. Extending the arm would take several hours, but the design allows for a 10-minute emergency retraction. The arm would also act as a massive keel, giving the ship tremendous stability. This, of course, would put enormous strain on the hinge. Ness says he's solved the problem but his tricks are under wraps until he can file a patent.

The Ocean Technology Foundation still has some way to go before it has enough money to build a ship. It's prepared to rope in anyone with an interest in the deep sea, from the oil and gas industry to the Navy. But the overall aim is to open up a new era of ocean exploration. Bizarre they may be, but ships that flip or have giant hinged arms might just be the breakthrough oceanography has been waiting for.

Questions 1 – 3

Complete the picture below.

*Choose **NO MORE THAN THREE WORDS** from the passage for each answer.*



IELTS 大虾必备

flip	[flip] *n.* 轻弹、轻抛；（跳水或体操动作中的）空翻
submersible	[sʌb'mə:səbl] *n.* 潜水艇、可在水下作业的船只 （动词形式：submerse，相当于 submerge，名词形式分别对应 submersion 和 submergence。）
trapdoor	['træp'dɔ:] *n.* 活板门 （trap 是“圈套、陷阱”的意思，因此 trapdoor 的基本含义是“陷阱门”，门板背后是与前边迥然不同的另一番天地，这片天地很可能含有很多危险！）
fuss	[fʌs] *n.* 忙乱、无谓纷扰 （这个单词还可以作动词，其形容词形式是 fussy。）
astounding	[ə'staundiŋ] *adj.* 令人惊骇的、使人大吃一惊的 （动词形式：astound）
manoeuvre	[mə'nu:və] *n.* （敏捷地）操纵、演习 （还可以拼写作 maneuver。）
rear	[riə] *adj.* 后面的、后方的
plunge	[plʌndʒ] *vi.* 投入、插入
vertical	['və:tikəl] *adj.* 垂直的 （反义词为前文提到过的 horizontal。）
submerge	[sʌb'mə:dʒ] *vt.* 潜水；淹没、沉没 （理解为两部分 sub-merge——“在…下＋浸、沾”，“浸入水中”进一步引申为上义。）
rotate	[rəu'teit] *vi.* 绕轴或中心转动、自转 （“公转”对应的动词是 revolve，其名词形式是 revolution。）
preposterous	[pri'pɔstərəs] *adj.* 荒谬的 （简单理解为 pre-post-erous——“在…之前＋在…之后＋形容词词尾”，基本意思是“把应放在首位的事情放在了末位”，本末倒置，现代英语中引申为“颠倒的、不合情理的”，进一步得到上义。）
gymnastics	[dʒim'næstiks] *n.* 体操训练、体操技巧，训练
weld	[weld] *v.* 焊接
resemblance	[ri'zembləns] *n.* 相似（点） （前文提到过它的动词形式 resemble。）
deposit	[di'pɔzit] *vt.* 存放、放下
propeller	[prə'pelə] *n.* 船上的螺旋推进器 （相关单词：propel *v.* --- propellant *n./adj.*）
drawback	['drɔ:bæk] *n.* 缺点、不便之处
hinge	[hindʒ] *vt.* 装上合叶、用铰链接合；*n.* 合叶、铰链
blade	[bleid] *n.* 刀刃、刀锋
appendage	[ə'pendidʒ] *n.* 附加物、附属物 （它的动词形式是 append，可理解为 ap-pend，表示“加强＋悬挂”，基本意思为“挂在…上”，表示“悬挂、附加”，这里在动词后加上 -age 变为名词。关于字根 pend，还可以了解单词 pendant 这个名词，表示“悬挂的饰物”，即“垂饰”，古人腰间佩带的玉佩就是典型的例子，当然它还可以指“很长、通常也很漂亮的耳环”。）
compartment	[kəm'pa:tmənt] *n.* 舱、室、隔间

versatility	[ˌvə:sə'tiləti] *n.* 多功能（性） （形容词形式：versatile）
edge	[edʒ] *n.* 优势
convert	[kən'və:t] *vt.* 使转变、转换 （理解为 con-vert，表示"加强＋旋转、转变"，进而得到上义。该单词的名词形式为 conversion。）
retraction	[ri'trækʃən] *n.* 缩进、缩回、撤回 （动词形式：retract，它的前两个字母与后边五个字母将其含义组合起来，前者表示"往回的作用力"，后者表示"拉"这个动作，因此这个动词的基本含义是"往回拉"，引申为"撤回、缩回"，关于字根 tract 表示"拉"这个含义，记忆相关单词 tractor——"拖拉机、牵引车"。）
breakthrough	['breikθru:] *n.* 突破（性的发现） （来自动词短语 break through）

重点词汇回顾 + 同义词扩充

fuss --- worry, concern, hassle, bother
astounding --- amazing, astonishing, surprising, shocking
manoeuvre --- ploy, tactic, scheme, operation, exercise
plunge --- throw, pitch, rush headlong
submerge --- immerse, dip, sink
rotate --- revolve, spin, swivel, turn
preposterous --- absurd, ridiculous, ludicrous
weld --- solder, join, connect, fuse
resemblance --- semblance, similarity, likeness, sameness
deposit --- put down, place, drop
dock --- wharf, quay, marina, anchorage, berth
drawback --- disadvantage, downside, weakness, minus
appendage --- attachment, adjunct, add-on, accessory
versatility --- adaptability, flexibility, resourcefulness
convert --- change, adapt, transform, transfer
retraction --- withdrawal, disavowal, renunciation
breakthrough --- advance, step forward, revolution, development

Exercise 2

Today's Noise Pollution Solutions

One little-known and invisible health risk has already affected 100 million Americans: partial hearing loss as a result of society's rising levels of noise. In the past, most victims of this ailment were adults, many of whom worked in factories or other noisy environments. Today, however, the risk has spread to children and young adults — and has become a common occupational and environmental hazard.

Up to 30 million Americans are exposed to dangerous sound levels in the workplace on a regular basis, reports the US National Institutes of Health (NIH). And many others also pursue noisy recreational activities. Sixty million Americans own firearms, and many use them without adequate hearing protection, according to a 1995 study in the Archives of Otolaryngology — Head and Neck Surgery. Then, there are chain saws, power tools, amplified music, traffic, sirens, snowmobiles, wave runners and motorcycles.

Jet engine mechanics and rock stars are not the only source of "noise". In fact, experts say that hearing loss and permanent ringing in the ears is being reported at younger and younger ages. Even children's toys can produce sounds capable of causing permanent hearing damage, according to research published in 1997 in the *International Journal of Pediatric Otorhinolaryngology*. As many as half of today's children now have some noise-caused hearing loss. The first-ever nationwide survey of children's hearing, published in the April 1998 edition of *The Journal of the American Medical Association*, showed that children have suffered hearing loss in both low and high frequencies. And hearing loss in children is often mistaken for other disorders — mental retardation, mental illness, brain damage or learning disorders.

Of the more than 28 million Americans with hearing impairment, about 10 million have hearing loss caused by excessive noise exposure, according to the NIH. Some ear pollution sources are obvious, but many hazards are not. And once one loses one's hearing, or some portion of it, it never comes back. Both intensity and duration of noise exposure determine the potential for damage. Even sounds perceived as comfortably loud can be risky. We actually hear with our brains, not our ears. First, sound waves — literally, waves of compressed air molecules — enter the ear and cause tiny hair cells to brush against a membrane. The membrane, in turn, sends electrical impulses to the brain, which interprets the impulses as the phenomenon we call sound. Those extremely delicate hair cells can be damaged — either by a single blast or by a prolonged, lesser exposure to noise. Hair cells sometimes rebuild over 48 hours — the normal period of temporary hearing loss.

However, the August 22, 2002 issue of *Nature* reports that permanent loss can occur when damage is so severe that it overwhelms the ear's self-repair mechanism. Standards for hearing health are very misleading. Sound pressure against the ears is measured in decibels (db) on a scale that is logarithmic. That means each increase of 10 db represents a ten-fold increase in noise intensity. In other words, a small sound increase from 90 to 100 db means 10 times the pressure against those delicate hair cells. That 10 db shift is approximately the difference between running a lawnmower (90 db) and using a chain saw (110 db). Switching between these two common tools results in more than 10 times the noise intensity (see "Earmark These Numbers" below).

What can be done about noise-induced hearing loss? Actually, some vitamins may hold a partial answer. The results of research published in the March 1999 edition of *The American Journal of Clinical Nutrition* found lower vitamin and folate levels in hearing-impaired, older women. Also, people with high cholesterol levels have greater hearing loss as they age. And a study published in the 1999 edition of *Life Sciences and Biotechnology Update* found corticosteroids administered one hour after noise exposure protect some hair cells from damage. This research, however, doesn't constitute a causal link and may only apply to age-related hearing loss. Another theory suggests that excess noise could be harming delicate hair cells through free oxygen radicals. Antioxidants — such as vitamins A, C and E — might help reduce this risk. Fruits and vegetables are rich sources of these vitamins.

Regardless, one's best defense is earplugs or headphones with a noise reduction rating (NRR) of 29–32. Custom-fitted earplugs are best, but foam rubber or wax plugs can also work. Protect children by turning down the volume on stereos and TVs. Use one appliance at a time, and turn it off as soon as possible. And do we really have to buy toys that squeak, ring or play music?

Noise	*Decibels (db)*
Whisper	*30–40*
refrigerator hum	*40*
talking	*50–100*
normal conversation	*60*
television, average volume	*68*
vacuum cleaner, 6 feet away	*73–81*
office din	*79–85*
city traffic	*80*
stove fan	*84*
dishwasher	*88*
lawnmower	*90*
busy kitchen noise	*90–100*
rock concert, chain saw, diesel train & stereo headphones	*110–120*
motorcycles & firecrackers	*120–140*
jet takeoff	*140*
gunshots	*140–170*

Most municipalities also have laws to deal with hearing hazards such as car alarms, loud music and construction noise. Use them. Report violations. Like air pollution, noise pollution is a public health problem — one we can prevent with sound reasoning.

Earmark These Numbers

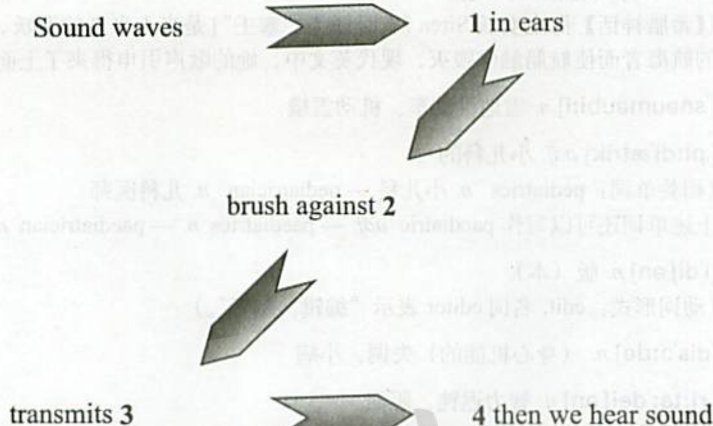
Prolonged exposure to sounds averaging 85 decibels (db) — or even short blasts of louder noises — can contribute to hearing problems.

--- *Adapted from: Better Nutrition, August, 2003, by Michael Downey*

Questions 1 – 4

Complete the flowchart below.

Choose **NO MORE THAN THREE WORDS** *from the passage for each answer.*



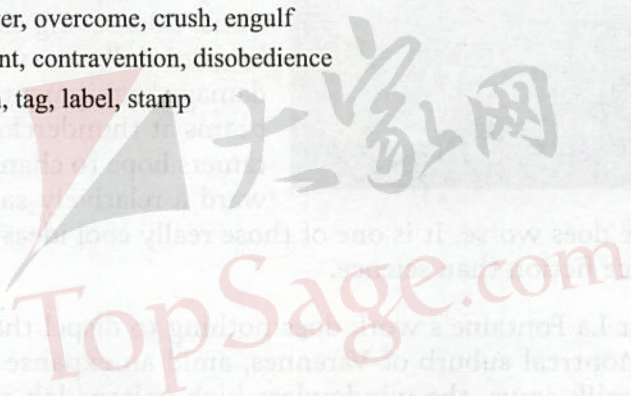
IELTS 大虾必备

archives	['a:kaivz] *n.* 档案（室）
surgery	['sə:dʒəri] *n.* 外科、手术 （从事 surgery 的医生是 surgeon，即"外科医生"，"内科医生"是 physician，前文提到过。）
siren	['saiərin] *n.* 警报器、汽笛 （【希腊神话】海上女妖 Siren [有时译为"塞壬"] 是半人半鸟的海妖，常用歌声诱惑过路的航海者而使航船触礁毁灭，现代英文中，她的歌声引申得来了上面的含义。）
snowmobile	['snəuməubi:l] *n.* 雪地机动车、机动雪橇
pediatric	[,pi:di'ætrik] *adj.* 小儿科的 （相关单词：pediatrics *n.* 小儿科 --- pediatrician *n.* 儿科医师 上述单词还可以写作 paediatric *adj.* --- paediatrics *n.* --- paediatrician *n.*）
edition	[i'diʃən] *n.* 版（本） （动词形式：edit, 名词 editor 表示"编辑、编者"。）
disorder	[dis'ɔ:də] *n.* （身心机能的）失调、小病
retardation	[,ri:ta:'deiʃən] *n.* 智力迟钝、阻滞 （相关单词：retard *v.* --- retarded *adj.* re-tard 表示"加强意义＋慢的"，即"比正常速度还要慢一点"。如果讲某人的脑子不灵光，运转慢一点，可以用 mentally retarded 这种说法，很明显，绝非褒义！）
impairment	[im'peəmənt] *n.* 损害、损伤 （动词形式：impair，是 repair 的反义词，而不同的是 repair 除了动词词性之外，还可以作名词。）
compress	[kəm'pres] *vt.* 压缩、用压力使更紧密 （名词形式：compression）
membrane	['membrein] *n.* （身体上的）薄膜、隔膜
prolong	[prə'lɔŋ] *vt.* 延长、拖延 （long *adj.* [中性] 长的 --- length *n.* 长度 --- lengthy *adj.* [贬义] 冗长的 --- lengthen *vt.* 延长、使…变长）
overwhelm	[,əuvə'hwelm] *vt.* 制服、压倒 （形容词形式 overwhelming 表示"压倒性的、势不可挡的"，例如 an overwhelming victory 表示"压倒性的胜利"。）
lawn mower	*n.* 剪草机、割草机
nutrition	[nju:'triʃən] *n.* 营养（学） （相关单词：nutritious *adj.*--- nutritional *adj.*--- nutrient *adj.*--- nutritionist *n.*）
antioxidant	[,ænti'ɔksidənt] *n.* 【化】抗氧化剂 （anti-oxidant 的两部分分别对应"抗＋氧化剂"。）
earplug	['iəplʌg] *n.* （防水、隔音、挡尘等用的）耳塞
wax	[wæks] *n.* 蜡（状物）

municipality	[mju:ˌnisiˈpæliti] *n.* 自治区、自治市 （形容词形式：municipal）
violation	[ˌvaiəˈleiʃən] *n.* 违犯、违反…的实例 （动词形式：violate）
earmark	[ˈiəma:k] *vt.* 给…加以记号 （原意是"给家畜的耳朵上打上记号"，进而得到上义。）

重点词汇回顾 + 同义词扩充

siren --- alarm, danger signal, distress signal, warning
disorder --- illness, sickness, ailment, malady
retardation --- obstruction, hindrance, obstacle
impairment --- damage, weakening, deficiency, injury
compress --- condense, compact, pack together
prolong --- protract, lengthen, delay, extend
overwhelm --- overpower, overcome, crush, engulf
violation --- infringement, contravention, disobedience
earmark --- mark down, tag, label, stamp



Exercise 3

Lightning Tamers

It is said that lightning never strikes the same place twice. But those scientists, who are in the high-voltage laboratory run by Canadian power giant Hydro-Quebec, one of the world's premier facilities for studying the most shocking electrical phenomena, can make it strike the same place 10, 20, even 100 times a day. The short, straight lightning bolts that dart between the lab's electrodes are a highly domesticated version of the real thing.



This group, led by scientist La Fontaine, is in the vanguard of international efforts to tame lightning — to trigger the strikes and guide them away from power lines and installations, thus saving electric utilities millions of dollars a year in outages and damaged equipment. By shooting laser beams at thunderclouds, the lightning tamers hope to channel a discharge toward a relatively safe location before Mother Nature does worse. It is one of those really cool ideas that seems better suited to science fiction than science.

The setting for La Fontaine's work does nothing to dispel that impression. Located in the Montreal suburb of Varennes, amid an expanse of flat green pastures and fat milk cows, the windowless high-voltage lab resembles an alien monolith from 2001: A Space Odyssey. Inside, the decor is more lost in Space: pale blue 150-foot walls bathed in stark gray light, ceramic towers girded by thick silver rings, silver domes made up of small round plates like the compound eyes of an insect. The electrodes used in the lightning experiments complete the sci-fi effect. Instead of slender rods, there are two circles of loose wire mesh suspended from the ceiling like huge trampolines, one hanging about 20 feet above the other. When sufficient charge flows to a rod descending from the upper electrode, an are of current jumps between their centres.

Even two centuries after Ben Franklin flew a kite in the rain, the formation of lightning is still poorly understood. Lightning strikes start in thunderheads when the strong thermal updrafts that build the towering clouds cause water droplets and ice crystals to collide, creating positively and negatively charged particles. These particles separate by weight and form electric fields within the cloud as well as between the cloud and the ground. The fields get amplified around water droplets, creating electric currents called streamers that coalesce like the tributaries of a river, forming even more strongly ionized channels.

These conductive channels propagate downward until a discharge jumps the gap between the channel and the ground. Then a wave of current surges upward through the small channel. The experts call this final, visible stage the "return stroke". The rest of people call it lightning, and it can carry current of up to 300,000 amperes (household current rarely exceeds 50 amperes).

Lightning rods ground strikes because their pointy edges produce amplified electric fields that can induce an arc before the electric field in the cloud grows strong enough to break down spontaneously. Of course, electrical energy doesn't discriminate between inexpensive metal rods and tall, sharp points on valuable voltage-sensitive equipment. That's why nearly every structure in the high-voltage lab is protected by rounded surfaces: These Jetson-esque rings and domes prevent the generation of unintended local discharges.

La Fontaine's goal is to provoke controlled discharges. His simulations re-create the charged field of a thundercloud: The rod represents the ionized channels that descend from a cloud, and the lower electrode represents the ground. But the lab experiments include another element definitely not found in nature: a state-of-the-art titanium-sapphire laser whose light is beamed up from the floor and through a hole in the centre of the lower electrode. A brief pulse of focused light knocks electrons off molecules in the air, blazing a conductive trail for the discharge to follow. Ideally, the laser pulse triggers a discharge and guides its path.

The researchers can tell right away whether they've succeeded in creating a laser-guided arc: Whereas an unguided discharge is crooked, like a natural lightning bolt, a guided discharge is perfectly straight, like a beam of laser light.

The idea of using lasers to coax lightning strikes has been around for decades, and Russian and Japanese scientists have long conducted outdoor experiments with them. The Japanese — motivated by their vulnerability to low-altitude winter thunderstorms that sweep across the Sea of Japan and strike nuclear power plants on the west coast of the main island — have taken the lead in triggered-lightning research. In 1997, north of Osaka, a group headed by Shigeaki Uchida of the Institute for Laser Technology successfully triggered two outdoor strikes using carbon dioxide laser beams focused at the tip of a 150-foot tower. Radar detectors picked up variations in the electric field from an approaching storm, indicating that a lightning strike was imminent. There is a 100-millisecond gap between these preliminary breakdown signals and the discharge, but the Japanese laser can generate a channel of charged particles in microseconds. "The laser is a thousand times faster than the lightning strike itself," says Uchida. "With one shot of laser, we neutralized the whole thundercloud."

Some investigators have questioned whether the elaborate system would outperform a simple battery of lightning rods lining the coast. That's an issue every research effort in laser-triggered lightning will someday confront.

--- *Adapted from: Discovery Magazine*

Questions 1 – 6

Complete the flowchart below, which describes the formation of lightning.

Choose ***NO MORE THAN THREE WORDS*** *from the passage for each answer.*

In thunderheads,
1 collides with 2,

↓

+ / – 3,
when separated by weight

↓

4,
when amplified

↓

5

↓

6,
which propagate downward, and when a discharge jumps the gap between the channel and the ground and then a wave of current surges upward, lightning occurs.

IELTS 大虾必备

premier	['premjə] *adj.* 首要的、第一的 （该词作名词表示“首相、总理”，Beloved Premier Zhou Enlai 即用来称呼“敬爱的周恩来总理”。）
domesticate	[də'mestikeit] *vt.* 使归化、驯化 （形容词形式：domestic。这里前三个字母 dom- 表示“房屋、家”，所以 domestic 的基本含义为“家里的、家庭的”，引申为“国内的”；相关单词 domicile 作名词表示“住所、住宅”，也从同一个字根而来。）
vanguard	['vænga:d] *n.* 先锋、领导者 （这个单词其实是法语单词 *avant garde* 的简写形式，表示“在…前面＋放哨、保卫”，哨兵、保卫人员的岗位通常是与敌人最近、也相对最危险的岗位，而如果某人站在哨兵的前边，他或她又是什么样的人物呢？牛人！当然是“先锋式的领导人物”喽！）
channel	['tʃænl] *vt.* 引导、开辟（道路、途径）
resemble	[ri'zembl] *vt.* 类似、像… （名词形式：resemblance）
alien	['eiljən] *adj.* 异族的、外来的 （美国电影《异形》就选择了这个单词作为电影的英文名。）
odyssey	['ɔdisi] *n.* 长期的冒险旅行 （来自荷马史诗中的“奥德塞”，它描述了奥德修斯 Odysseus 在特洛伊战取胜后的冒险经历及漂泊生活，“奥德塞”对应的单词 odyssey 因此得到了上边的引申含义。）
décor	['deikɔ:] *n.* 装饰（的格调）、装潢
ceramic	[si'ræmik] *adj.* 陶瓷的、陶制的 （名词 ceramics 表示“制陶术、制陶业”。）
thermal	['θə:məl] *adj.* 热（量）的
updraft	['ʌpdra:ft] *n.* 上升气流 （反义表达是 downdraft）
towering	['tauəriŋ] *adj.* 高耸的、耸立的
collide	[kə'laid] *vi.* 碰撞、互撞 （名词形式：collision。理解为 col-lide——“共同、一起＋碰撞”，所以它的基本含义是“相互碰撞”。）
amplify	['æmplifai] *vt.* 放大、扩大 （相关单词：amplification *n.* --- amplifier *n.*）
propagate	['prɔpəgeit] *vi.* 传送、传播 （名词形式：propagation）
exceed	[ik'si:d] *vt.* 超越、超过 （形容词 exceeding 表示“超过的、胜过的；非常的、极度的”；副词 exceedingly 表示“非常地、极度地”。）
induce	[in'dju:s] *vt.* 导致、引起 （名词形式：induction）
spontaneously	[spɔn'teinjəsli] *adv.* 自发地、非由外力诱发地 （相关单词：spontaneous *adj.* --- spontaneity *n.*）
provoke	[prə'vəuk] *vt.* 引起、使…出现 （相关单词：provocative *adj.* --- provoking *adj.* --- provocation *n.* 这里单词 provoke 的意思并非其本意。基本意思可以这样理解：pro-voke——“向前＋叫喊”，表示“和某人叫板，看你还敢不敢往前再迈一步？”有种“如果你胆敢再走一步，我就把你如何如何”的意味，所以表示“挑衅、挑拨、激怒”等意，在文中的语境引申得到了上边的含义。）



simulation	[ˌsimjuˈleiʃən] *n.* 模拟、模仿 （动词形式：simulate）
sapphire	[ˈsæfaiə] *n.* 蓝宝石 （silver wedding —— 银婚、结婚二十五周年 ruby wedding——红宝石婚、结婚四十周年 sapphire wedding——蓝宝石婚、结婚四十五周年 golden wedding——金婚、结婚五十周年 diamond wedding ——钻石婚、结婚六十年）
blaze	[bleiz] *vt.* 闪耀出、显示出
motivate	[ˈməutiveit] *vt.* 激发、激励、鼓励 （相关单词：motivation *n.* --- motivational *adj.* mot- 表示“动、运动”，motivate 表示的是“某人的言行举止让别人看了之后有行动的欲望”，即“激励、激发”； motion—— *n.* 运动 motive—— *n.* 动机 promotion—— *n.* 基本含义是“往前动”，表示“促进”，如果用来指某人的职业生涯，就是说他或她得到了升职；反义词“贬职”对应的英文单词是 demotion，字面意思是“往下动”。）
altitude	[ˈæltitjuːd] *n.* 海拔高度
imminent	[ˈiminənt] *adj.* 即将发生的、即将来临的 （相关单词：imminence *n.* --- imminently *adv.*）
preliminary	[priˈliminəri] *adj.* 开头的、初步的、预备的
outperform	[ˌautpəˈfɔːm] *vt.* 做得比…好、胜过 （前边介绍过 out- 作为前缀的含义，这里同样。类似单词有 outlive, outnumber, outgo, outdance 等。）
confront	[kənˈfrʌnt] *vt.* 面对、碰到、遇到 （con-front—— “共同、一起＋额头、脸”，“额头对额头、脸对脸”，引申为“面对、碰到”。）

重点词汇回顾 + 同义词扩充

premier --- primary, chief, foremost, principal
domesticate --- tame, bring under control, housetrain
vanguard --- advance guard, precursor, forerunner
resemble --- look like, take after, remind somebody of, seem like
odyssey --- journey, trek, pilgrimage, crusade
collide --- crash, bump (into), run into
amplify --- intensify, augment, magnify, enlarge
exceed --- surpass, go beyond, outdo, outstrip
induce --- produce, stimulate, cause, generate, provoke
motivate --- arouse, provoke, impel, activate
imminent --- looming, pending, forthcoming, impending
preliminary --- initial, introductory, maiden, primary
confront --- encounter, challenge, face (up to)

Exercise 4

African American Marriage in the 20th Century

It is not possible to understand African American marriages fully without attention to the social, economic, racial, and historical factors that have stressed male-female relationships beyond those stresses experienced by majority couples. There is an old joke which says that African Americans are the only immigrants who were heavily recruited to come to this country, had escorts for the trip, and jobs awaiting. Throughout their history in the U.S., the circumstances and consequences of their unique arrival and subsequent treatment profoundly influenced every aspect of their life, especially marriage. The conditions under which they were forced to live have exerted an ongoing and unrelenting disruption of their efforts to build cohesive families within stable marriages. In the continuing absence of environmental supports, their struggles against these undermining influences have left African American marriages fragile and extremely vulnerable to societal shifts and changes.

Only since the 1960s have scholars been concerned about the rising divorce, decreasing marriage, and relatively high male-female relationship instability rates among African Americans. The factors responsible for rising divorce rates in the U.S. and elsewhere — namely, the increased human lifespan, the transformation of women's roles, and the shift in values and beliefs about marriage and divorce — have also further weakened marital stability among African Americans. For example, divorce among African Americans has been consistently higher than that for other groups — their divorce rate is twice that for whites.

At the same time, the decline in marriages has been even higher, prompting some experts to express fear for the survival of African American families. In 1960, 78% of African American households included a married couple; this rate decreased to 64% in 1970; and by the late 1980s, only 48% of African American households included both a husband and a wife. This downward trend continued, reaching a low of 39% by 1993. According to the U.S. Bureau of Census, in 2000, 16% of African American males were married, as compared to 60% of whites; 37% of African American females were married (nearly twice as many unmarried) as compared to 57% of white females.

It is generally believed that contextual conditions and the societal role of African Americans have been responsible for the problems that threaten marital occurrence, quality, and stability. The conditions include the restriction of economic opportunities, the discrediting of African American identities, and the use of social practices and policies that have legitimized inequality.

Many sociology scholars contend that slavery was the initial factor that sabotaged African American marriages: slaves were forbidden by law to marry in some states, and other states seriously circumscribed their freedom to do so. Furthermore, any emotional bonds that slaves sought to cre-

ate were substantially undermined by the prevailing beliefs and social structures that reified the inferiority of African Americans: males were regarded as oversexed, promiscuous, and incapable of marital commitment; slave sales separated families and disrupted relationships, and females were sexually exploited.

African-American males were invisible, except when perceived as aggressive and out of control — a perception that persists today. After slavery, the stability of the African American family continued to be assaulted by a number of forces that threatened their roles as husbands and wives: for example, the disorganization of the post-Civil War plantation economy, during which there were frequent separations from and desertions by spouses; ongoing economic exploitation; disenfranchisement (maintained by lynching); and other structural inequities affecting employment, housing, and health. Despite the legacy of slavery and post-war instability, African American couples were tenacious and resilient enough to be able to marry and maintain their relationships. In 1880, 80% of African American families included a husband and wife. But, even though the majority had married and created stable families as soon as they could, the legacies discussed above left marriages and families vulnerable to the assault of massive stresses in the last half of the 20th century.

The northward migration of African Americans began in the early 1900s and continued into the 1960s. Large numbers left the rural South for work in the urban areas of the North and West. A blue-collar middle class with some economic stability emerged, but there also was ongoing economic inequity, high unemployment and underemployment, poor healthcare, and discrimination in housing and education. These factors, along with an erosion of the extended family because of the migration, meant that African American couples continued to be under siege. But a majority of African Americans married and stayed married until the 1960s.

With the disappearance of stable employment and blue-collar jobs in urban centers after 1960, this component of the African American middle class was decimated. The shift to a technological economy radically changed the choices and chances for many African American males. High levels of poverty, crime, drug abuse, and incarceration followed.

The fragility of African American marriages, derived from their legacies and societal role, are associated with a number of problems that affect male/female relationships. In 1990, African Americans constituted 12% of the U.S. population, but their men made up 47% of the prison population and 28.8% of males in psychiatric hospitals. Fifty-four percent of their children lived in one-parent families, and these children constituted 50% of all children awaiting adoption. Today, African Americans suffer disproportionately and have higher morbidity from stress diseases (high blood pressure, heart disease, and diabetes), and even much higher rates of cancer and HIV-AIDS. In 1996, 41% of childbirth deaths and 30% of the infant mortality rate were African Americans.

--- Adapted from: Family Process, Summer, 2002, by Elaine B. Pinderhughes
A multi-disciplinary journal of family therapy, research and treatment.

Questions 1–5

Complete the table below.

*Choose **NO MORE THAN THREE WORDS** from the passage for each answer.*

Year	Percentage	African Americans (households)
1	80%	a husband and wife
1970	64%	2
1990	3	children lived in one-parent families
1996	4	infant deaths
5	16%	married males

IELTS 大虾必备

recruit	[ri'kru:t] *vt.* 征募（新兵）、吸收（新成员） （名词形式：recruitment）
escort	['eskɔ:t] *n.* 护送（队）、护卫（队）
unrelenting	[ˌʌnri'lentiŋ] *adj.* 持续不断的、严峻的 （相关单词：unrelentingly *adv.* --- relentingly *adv.* --- relenting *adj.*）
disruption	[dis'rʌpʃən] *n.* 破坏、瓦解 （相关词形变化：disrupt *vt.* --- disruptive *adj.*）
marital	['mæritl] *adj.* 婚姻的
bureau	['bjuərəu] *n.* 局、办公署 （来自法语，原意为"写字台"，后来外延逐步扩大，用来指"有写字台的办公室"，又进一步扩展，指政府机构里的"局、司、办公署"。）
census	['sensəs] *n.* 人口普查、人口调查
restriction	[ris'trikʃən] *n.* 限制、约束 （动词形式：restrict）
discredit	[dis'kredit] *vt.* 败坏…的名声、诽谤 （理解为 dis-credit，credit 作名词表示"信任、荣誉"，和否定前缀 dis- 放在一起得到上义。）
sabotage	['sæbəta:ʒ] *vt.* 妨害、破坏 （要了解它的含义首先要知道 sabot 这个单词，表示"木底鞋、木履"，英文又称 clog。由这个名词转变而来的动词 sabotage 的最初含义是"走路声音很大"，进而引申为"做事笨手笨脚"，又引申为"把事情做糟、毁掉、破坏"。）
circumscribe	['sə:kəmskraib] *vt.* 限制、约束 （可分两部分看：circum-scribe——表示"环绕、包围＋写"，基本含义表示"在某事物的周围写下"，进而引申为"用条条框框限制某事的完成"，得到上义。）
inferiority	[inˌfiəri'ɔriti] *n.* 劣等、次等 （形容词形式：inferior，反义词 superiority，其形容词形式为 superior；所谓 superiority complex 表示"自大情结、优越感"；相反 inferiority complex 则表示"自卑情结、自卑感"。）
commitment	[kə'mitmənt] *n.* 承诺、许诺
exploit	[iks'plɔit] *vt.* （不道德地）利用、使用 （名词形式：exploitation）
assault	[ə'sɔ:lt] *vt.* 攻击、袭击 （该单词也可以用作名词。）
desertion	[di'zə:ʃən] *n.* 遗弃、抛弃 （动词形式：desert，注意：作名词的时候，desert 的重音与作动词时有所不同，名词表示"沙漠"。）
spouse	[spauz] *n.* 配偶（指夫或妻）
legacy	['legəsi] *n.* 遗赠、遗产
tenacious	[ti'neiʃəs] *adj.* 顽强的、不屈不挠的 （名词形式：tenacity）
resilient	[ri'ziliənt] *adj.* 能立即恢复活力的、有弹性的 （名词形式：resilience）
discrimination	[disˌkrimi'neiʃən] *n.* 歧视、区别对待 （动词形式：discriminate）
erosion	[i'rəuʒən] *n.* 侵蚀、腐蚀 （动词形式：erode）
siege	[si:dʒ] *n.* 包围、围攻、围困

decimated	['desimeitid] *adj.* 大量毁坏、大批杀死 （动词形式：decimate，名词形式：decimation。这里的 dec- 表示“数字十”，例如单词 decade 表示“十年”。而 decimate 的最初含义指的是“每十人要杀死其中的一个人”，是古罗马军队对反叛军团的一种惩罚。现在这一层意思通常引申为“大批杀死”。）
incarceration	[in,ka:sə'reiʃən] *n.* 监禁、下狱 （动词形式：incarcerate。可以这样理解动词形式——in-carcer-ate，表示“里边＋监狱＋动词词尾”，carcer 是拉丁语字根，表示“监狱”，所以这个动词的基本含义是“把…放入监狱之中”，得到“监禁、下狱”的意思。实际上，它和另外一个动词 imprison 是一样的含义，只不过后者是由现代英语单词 prison 构成的，而 incarcerate 由拉丁语字根发展而来而已。）
morbidity	[mɔ:'biditi] *n.* 病态、发病率 （形容词形式：morbid，谐音为“毛病”，实际含义表示“病态的、由病引起的”，在形容词后加上名词词尾 -ity 得到这里的名词形式。）
diabetes	[,daiə'bi:ti:z] *n.* 【医】糖尿病
mortality	[mɔ:'tæliti] *n.* 死亡 （字根 mort- 表示“死亡”，形容词“死亡的”对应的表达形式是 mortal，那么在形容词后再加上名词词缀 -ity，得到上边表示“死亡”的名词形式 mortalit；那么什么是 immortal 呢？这里的前两个字母 im- 是否定前缀，很多英汉字典里把 immortal 翻译成“不朽的”，其实就是“不死的、死不了的”的意思；the immortal 这个表达形式的意思——在该形容词前加上定冠词表示一类人——是“不会死的人、神仙”；名词 immortality 就是 mortality 的反义词，表示“不死、不朽”。）

重点词汇回顾 ＋ 同义词扩充

recruit --- employ, conscript, enlist, take on, draft
escort --- aide, chaperon, bodyguard, companion
disruption --- disturbance, disorder, interruption, distraction
marital --- nuptial, connubial, conjugal, matrimonial
restriction --- limit, limitation, restraint, constraint
discredit --- smear, insult, humiliate, disgrace
sabotage --- disrupt, damage, impair, incapacitate
circumscribe --- limit, restrict, confine, demarcate
inferiority --- humbleness, subordination, subservience, lowliness
commitment --- pledge, promise, vow, obligation
exploit --- use, take advantage of, employ, utilize
assault --- assail, attack, mug, beat up
discrimination --- bias, prejudice, unfairness
erosion --- corrosion, decay, deterioration
siege --- blockade, barrier, barricade, obstruction
decimate --- devastate, annihilate, slaughter, demolish
incarceration --- imprisonment, confinement, captivity
morbidity --- ill health, illness, indisposition

雅思阅读

真经试题

INTERNATIONAL ENGLISH LANGUAGE TESTING SYSTEM

ACADEMIC READING
TEST 1

TIME ALLOWED: 1 hour
NUMBER OF QUESTIONS: 40

INSTRUCTIONS

WRITE ALL YOUR ANSWERS ON THE ANSWER SHEET

The test is in 3 sections:

Reading Passage 1	Questions 1 – 13
Reading Passage 2	Questions 14 – 26
Reading Passage 3	Questions 27 – 40

Remember to answer all the questions. If you are having trouble with a question, skip it and return to it later.

READING PASSAGE 1

*You should spend about 20 minutes on **Questions 1 – 13** which are based on Reading Passage 1 below.*

IMPROVING READING SPEED

It is safe to say that almost anyone can double his speed of reading while maintaining equal or even higher comprehension. In other words, anyone can improve the speed with which he gets what he wants from his reading.

The average college student reads between 250 and 350 words per minute on fiction and non-technical materials. A "good" reading speed is around 500 to 700 words per minute, but some people can read a thousand words per minute or even faster on these materials. What makes the difference? There are three main factors involved in improving reading speed: (1) the desire to improve, (2) the willingness to try new techniques and (3) the motivation to practice.

Learning to read rapidly and well presupposes that you have the necessary vocabulary and comprehension skills. When you have advanced on the reading comprehension materials to a level at which you can understand college-level materials, you will be ready to begin speed reading practice in earnest.

Understanding the role of speed in the reading process is essential. Research has shown a close relation between speed and understanding. For example, in checking progress charts of thousands of individuals taking reading training, it has been found in most cases that an increase in rate has been paralleled by an increase in comprehension, and that where rate has gone down, comprehension has also decreased. Most adults are able to increase their rate of reading considerably and rather quickly without lowering comprehension.

Some of the facts which reduce reading rate:

(a) limited perceptual span i.e., word-by-word reading;

(b) slow perceptual reaction time, i.e., slowness of recognition and response to the material;

(c) vocalization, including the need to vocalize in order to achieve comprehension;

(d) faulty eye movements, including inaccuracy in placement of the page, in return sweep, in rhythm and regularity of movement, etc.;

(e) regression, both habitual and as associated with habits of concentration

(f) lack of practice in reading, due simply to the fact that the person has read very little and has limited reading interests so that very little reading is practiced in the daily or weekly schedule.

Since these conditions act also to reduce comprehension increasing the reading rate through eliminating them is likely to result in increased comprehension as well. This is an entirely different matter from simply speeding up the rate of reading without reference to the conditions responsible for the slow rate. In fact, simply speeding the rate especially through forced accelera-

tion, may actually result, and often does, in making the real reading problem more severe. In addition, forced acceleration may even destroy confidence in ability to read. The obvious solution, then is to increase rate as a part of a total improvement of the whole reading process.

A well planned program prepares for maximum increase in rate by establishing the necessary conditions. Three basic conditions include:

1. Eliminate the habit of pronouncing words as you read. If you sound out words in your throat or whisper them, you can read slightly only as fast as you can read aloud. You should be able to read most materials at least two or three times faster silently than orally.
2. Avoid regressing (rereading). The average student reading at 250 words per minute regresses or rereads about 20 times per page. Rereading words and phrases is a habit which will slow your reading speed down to a snail's pace. Furthermore, the slowest reader usually regresses most frequently. Because he reads slowly, his mind has time to wander and his rereading reflects both his inability to concentrate and his lack of confidence in his comprehension skills.
3. Develop a wider eye-span. This will help you read more than one word at a glance. Since written material is less meaningful if read word by word, this will help you learn to read by phrases or thought units.

Poor results are inevitable if the reader attempts to use the same rate indiscriminately for all types of material and for all reading purposes. He must learn to adjust his rate to his purpose in reading and to the difficulty of the material he is reading. This ranges from a maximum rate on easy, familiar, interesting material or in reading to gather information on a particular point, to minimal rate on material which is unfamiliar in content and language structure or which must be thoroughly digested. The effective reader adjusts his rate; the ineffective reader uses the same rate for all types of material.

Rate adjustment may be overall adjustment to the article as a whole, or internal adjustment within the article. Overall adjustment establishes the basic rate at which the total article is read; internal adjustment involves the necessary variations in rate for each varied part of the material. As an analogy, you plan to take a 100-mile mountain trip. Since this will be a relatively hard drive with hills, curves, and a mountain pass, you decide to take three hours for the total trip, averaging about 35 miles an hour. This is your overall rate adjustment. However, in actual driving you may slow down to no more than 15 miles per hour on some curves and hills, while speeding up to 50 miles per hour or more on relatively straight and level sections. This is your internal rate adjustment. There is no set rate, therefore, which the good reader follows inflexibly in reading a particular selection, even though he has set himself an overall rate for the total job.

In keeping your reading attack flexible, adjust your rate sensitivity from article to article. It is equally important to adjust your rate within a given article. Practice these techniques until a flexible reading rate becomes second nature to you.

— Adapted from: www.ucc.vt.edu

Questions 1 - 4

*Choose the appropriate letters **A – D** and write them in boxes 1 – 4 on your answer sheet.*

1 Which of the following is not a factor in improving your reading speed?

A Willing to try new skills.
B Motivation to improve.
C Desire to practice.
D Hesitate to try new techniques.

2 Understanding college level materials is a prerequisite for

A learning to comprehend rapidly.
B having the necessary vocabulary.
C beginning speed reading.
D practising comprehension skills.

3 For most people

A a decrease in comprehension leads to a decrease in rate.
B a decrease in rate leads to an increase in comprehension.
C an increase in rate leads to an increase in comprehension.
D an increase in rate leads to a decrease in comprehension.

4 Speeding up your reading rate through forced acceleration often results in

A reducing comprehension.
B increasing comprehension.
C increasing your reading problem.
D reducing your reading problem.

Questions 5 – 9

Complete the table below.

*Choose **NO MORE THAN THREE WORDS** from the passage for each answer.*

Factors	Effects	Reduces rate	Increases rate
Wider eye span	**5**		YES
6	Word-by-word reading	YES	
Slow perceptual reaction	**7**	YES	
8	Return sweep inac-curacy	YES	
9	Concentrate and be confident		YES

Questions 10 – 13

Do the following statements agree with the information given in Reading Passage 1?

In boxes 10 – 13 on your answer sheet write

TRUE *if the statement is true*
FALSE *if the statement is false*
NOT GIVEN *if the information is not given in the passage.*

10 In gathering material on a topic a reader must maximize his reading rate.

11 The basic rate for each part of the reading material involves an overall adjustment.

12 The set rate for a 100-mile mountain trip is 35 miles an hour.

13 A good reader never establishes a set rate for reading an article.

READING PASSAGE 2

You should spend about 20 minutes on ***Questions 14 – 26*** *which are based on Reading Passage 2 below.*

Questions 14 – 18

Reading Passage 2 has 9 paragraphs ***A – I****.*

From the list of headings below choose the 5 most suitable headings for paragraphs ***B****,* ***C****,* ***E****,* ***G*** *and* ***H****.*

*Write the appropriate numbers (****i – x****).*

NB *There are more headings than paragraphs, so you will not use them all.*

List of Headings

i	A warm laboratory
ii	Morphology of stoneflies
iii	Going back rather than going forward
iv	From water to air
v	Ancient and modern
vi	Which path did they take?
vii	A new theory
viii	From stoneflies to wasps
ix	A short life
x	Interesting insects

14 Paragraph **B**

15 Paragraph **C**

16 Paragraph **E**

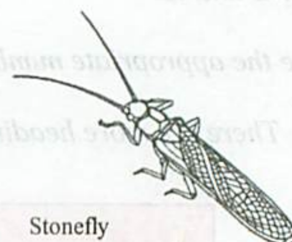
17 Paragraph **G**

18 Paragraph **H**

Evolution of Insect Flight

A. Pterosaurs, birds and bats took to the air from evolutionary runways that scientists believe they understand fairly well, but insects began flying so much longer ago that details of their stepwise conquest of flight remain obscure. Scientists at Pennsylvania State University hypothesize, however, that a present-day flightless insect called the stonefly may be closely related to ancestral insects that first learned to fly more than 330 million years ago.

B. Last February, Dr. James H. Marden, a biologist at Pennsylvania State University, and Melissa G. Kramer, his student, began studying the behaviour and biology of stoneflies — the immature nymphs of which are familiar to many fishermen as delicacies for trout. The nymphs begin life in river or pond water and then develop primitive wings enabling them to skim across water at high speed without actually taking to the air. Marden and Ms. Kramer have concluded that the humble ancestor of such expert fliers as mosquitoes and wasps may have been very much like the stonefly.


Stonefly

C. The stoneflies living in Canada and the northern United States, which belong to a primitive species called Taeniopteryx burksi, breed and mature in cold water and come to the surface for their skimming trip to shore in February and March. To study them, a scientist must work quickly, since the life span of a stonefly is only about two weeks. The adult stonefly has waterproof hair on its feet, and after reaching the surface of the water, it supports itself by coasting on the water's surface meniscus layer. To hasten its trip to the shore, the insect spreads its four feeble wings and flaps vigorously, using aerodynamic thrust to scoot across the water at speeds up to 2 feet per second. This, Marden said, appears to be the only time in its life the stonefly normally uses its wings.

D. In a series of experiments Marden described in a report published in the current issue of the journal *Science*, he found that although stoneflies in the wild, where ambient temperatures were recorded as ranging between 32 degrees and 53.6 degrees Fahrenheit, are completely flightless, their flying ability improves when they are warmed up in a laboratory. Even when warm, the insects never voluntarily take flight from a horizontal surface, but if they crawl to the edge of a table and drop over the side they will fly for a few yards before settling to the ground. Several specimens tested by the Penn State scientists actually gained a little altitude under their own power after being launched by hand, but none remained in the air for more than a few seconds.

E. Stoneflies are interesting, Marden said in an interview, because so little is known of the specific changes insects underwent in the remote past as they gained the ability to fly. The stonefly's faltering efforts to use its wings may approximate a transitional stage of evolution that occurred some 350 million years ago, when swimming insects first became fliers.

F. The study of insect evolution is hampered by a gigantic gap in the fossil record. Although fossils of early nonflying insects have been found in sediments dating from the Devonian period nearly 400 million years ago, no insect fossils have turned up from the following 75-million-year period. Marden said that fossil insects reappear in strata 325 million years old, but by then they had evolved greatly, and their increased diversity suggests that at least some species had left the water to colonize land. Many of the fossils of that period look like present-day insects, including grasshoppers.

G. Stoneflies lack some features that are important for true fliers, They have relatively weak wing muscles, and their thoracic cuticle plates are not fused together to create a rigid external skeleton. Rigidity is needed to provide strong, inflexible attachment points for an insect's wing muscles if it is to be capable of powered flight — a much more demanding activity than skimming or gliding. If the stonefly is similar to the first protofliers, this would argue against a widely held hypothesis that animal flight begins with gliding, from which powered flight eventually develops. Stoneflies never glide, even though they are on the verge of flying.

H. Although the stonefly may have evolved to its present form in a progressive direction from primitive swimming insects, it is possible, Marden believes, that its evolution was digressive — that its ancestors were true fliers that evolved into nonflying skimmers. Skimming requires much less energy than true flight, as demonstrated by a new family of skimming "wing-in-ground-effect" flightless aircraft developed during the last decade in Russia, China and Germany. These aircraft never rise more than a few feet above the ground or water, but their stubby wings support them on an air cushion that eliminates the drag of surface friction.

I. "Stoneflies seem to have found an ecological niche in any case," Marden said. Whether the evolutionary pathway of the stonefly was progressive or digressive makes little difference to the insect, he said, but to an entomologist, the direction is important. "By mapping behavioral characters and morphology [1] of stoneflies, we hope eventually to infer the direction by which evolution carried them to their present stage of development," Marden said.

Questions 19 – 22

*Using **NO MORE THAN THREE WORDS** from the passage, answer the following questions.*

19 How long ago did stoneflies first use their wings?

20 How wide is the fossil gap?

21 Where is the only place that stoneflies actually fly?

22 What time of the year do stoneflies use their wings?

Questions 23 – 26

Complete the summary below.

Choose your answers from the list below the summary.

***NB** There are more words than spaces, so you will not use them all.*

Stoneflies have ____**23**____ wing muscles and a ____**24**____ external skeleton so that they cannot be true fliers. As they can't fly or ____**25**____ they skim. Less energy is needed for skimming and so stoneflies have found their ____**26**____ in life.

List of Words

new family	rigid	strong	attachment points
verge of flying	glide	weak	
ecological niche	cuticle	an air cushion	
flexible	powered flight	take off	

READING PASSAGE 3

*You should spend about 20 minutes on **Questions 27 – 40** which are based on Reading Passage 3 below.*

Maternal Education and Child Mortality

A. Many studies have been carried out which recognize education (especially that of mothers) as an effective way of improving children's health and reducing child mortality. Caldwell refers to the results of two surveys that were carried out in Nigeria to arrive at the conclusion that "Maternal education is the single most significant determinant of child mortality." However, maternal education is an intertwined factor, and hence may account for other variables that represent socio-economic conditions as well.

B. Although the relationship between maternal education and children's health is no longer an issue to be debated, there still exists a dearth of research information on the mechanisms through which maternal education works to improve children's health. A few of the possible mechanisms that have been focused so far are pointed out below:

- Education makes a woman conscious about the well being of herself and her family. It gives the basic ideas about the path to well being and also equips and encourages to increase her knowledge on healthy living;
- Education helps to form the attitude to practise "manners of hygiene";
- Education equips mothers with the knowledge of scientific causes of disease and proper health behaviour and illness behaviour for preventive and curative measures;
- Education encourages mothers to adopt proper feeding practices;
- Education makes the mothers more willing to use health care services when necessary, and preparing them for overcoming the barriers in doing so. Doctors and nurses are more likely to listen to her, as she can demand their attention, whereas the illiterate might be completely rebuffed;
- Education allows greater exposure to the mass media, which can keep mothers better informed about the health issues;
- Education empowers mothers to make and implement proper and timely decisions regarding their children's health;

Thus, we find maternal education as a gate way toward diversified aspects of modern life that significantly affect children's morbidity and mortality.

C. A debate has arisen on the link between maternal education and children's health concerns relative effectiveness of general education (acquired through formal schooling) and health education. While the former enables a mother to become literate and hence gain access to the understanding of written material, the latter only provides her with information on certain health issues. However, educating through general education is time consuming, and to get positive results for the improvement of the health of the illiterate masses, within a short time, health education might be a better choice.

D. Although health education as such might be effective for the illiterate, health education can-

not be a substitute for general education to ensure survival and health of the children. Rather, more lessons on topics necessary to know in order to maintain a healthy life should be included in the textbooks (such as the germ theory of disease, symptoms of diseases the presence of which should be consulted with a doctor, knowledge in first aid etc.). General education equips a person with literacy — which gives her access to books and to the mass media, which keeps her up to date regarding new information on health affairs. However, it would certainly be very beneficial to arrange annual or bi-annual health education programs to review the major health issues (and the issue of pregnancy and child care which is difficult for primary school children to grasp).

E. At this point another question may be raised: How many years of schooling is required for education to have a substantial amount of effect on children's survival/health? According to a study by Mahalanabis et al., in Bangladesh, schooling of seven years or more of the mothers reduced 55% risk of a child's being attacked by a severe disease resulting from diarrhea, but lesser number of schooling could not provide appreciable protection. Majumder and Islam's study in Bangladesh shows that child survival index moves up from .764 to .811 with the increase of education from no schooling to 5 years of schooling (Primary level in Bangladesh). But the increase of index for the difference between primary level to secondary level or higher (at least ten years of schooling) is even greater, moving up from .811 to .882. Thus, the difference between child survival index rises from .764 to .882 with the difference of no schooling to ten or more years of schooling. Lindenbaum's has mentioned a case of Khurshida, to show how a woman having seven years of schooling was able to ensure proper treatment for her sick child, after overcoming the different sorts of barriers, which came in her way.

F. Maternal education, on its own is not sufficient to ensure survival of children. However, all other efforts in absence of maternal education cannot be fully effective either. Hence, we should look for ways in which maternal education can be the most effective to ensure children's health to determine the appropriate policy to be obtained. From the discussion of the studies above, the following can be suggested:

- At least seven years of schooling should be made compulsory for girls.
- All basic health issues (which might differ from society to society) should be covered in the textbooks and curricula of lower grades in school and be taught properly, so that even in cases of dropouts, the children will have sufficient health education to lead a healthy way of life, for themselves and their family and community.
- As it is difficult for school children aged 12 or below to understand the health issues related to pregnancy, child birth and child care, arrangements for health education (annual/bi-annual) concerned with these and other basic health issues must be made. Mother and child health care programs must function properly to be beneficial for the public. The health care centers must be situated at suitable distance, and convenient opening hours, friendly behaviour of the staff and supply of sufficient facilities and medicines must be ensured.

G. Thus, it can be said that in order to ensure children's survival, the governments of third world countries, world organizations, donor countries and Non-Government Organizations, must take initiatives to ensure literacy and sufficient health-knowledge for the mothers and also provide appropriate conditions and environment for them to apply that knowledge. This indeed is a great task. But this has to be ensured to ensure the survival of children.

--- *Adapted from: www.unescobkk.org*

Questions 27 – 31

Reading Passage 3 has 7 paragraphs ***A – G****.*

Which paragraph contains the following information?

27 A literate person has access to books and the mass media.

28 Educated mothers make right decisions in time.

29 The illiterate have handicaps to health care services.

30 Health issues relating to pregnancy should be included.

31 General education is the poorer choice.

Questions 32 – 35

Choose the appropriate letters ***A – D*** *and write them in boxes 32 – 35 on your answer sheet.*

32 In research there seems to be a (an) ________________ of information on how maternal education affects children's health.

A plentiful supply
B average supply
C overabundant supply
D meager supply

33 Which of the following statements about education and mothers is NOT true?

A Medical staff are more helpful.
B Demand for medical services declines.
C Family health is improved.
D Caring for the sick improves.

34 ________________ so that children may live and have a healthy way of life for themselves and their family.

A Health education is a priority.

B More textbooks should be provided.

C The illiterate masses need to be taught to read and write.

D Health topics should be included in textbooks.

35 General education enables mothers to become ____________

A able to read and write quickly.

B informed on some health issues.

C writers about some health issues.

D able to read and write over a long time.

Questions 36 – 40

Do the following statements agree with the information given in Reading Passage 3?

In boxes 36 – 40 on your answer sheet write

YES	*if the statement agrees with the writer*
NO	*if the statement contradicts the writer*
NOT GIVEN	*if there is no information about this in the passage.*

36 A decade of schooling means that the child survival index moves up by .071.

37 School education of less than seven years increases the risk of severe disease.

38 Seven years of schooling is compulsory for boys.

39 Children who leave school early will not have sufficient education to lead a healthy life.

40 Health education should be arranged every two years.

INTERNATIONAL ENGLISH LANGUAGE TESTING SYSTEM

ACADEMIC READING
TEST 2

TIME ALLOWED: 1 hour
NUMBER OF QUESTIONS: 40

INSTRUCTIONS
WRITE ALL YOUR ANSWERS ON THE ANSWER SHEET

The test is in 3 sections:

Reading Passage 1	Questions 1 – 14
Reading Passage 2	Questions 15 – 27
Reading Passage 3	Questions 28 – 40

Remember to answer all the questions. If you are having trouble with a question, skip it and return to it later.

READING PASSAGE 1

*You should spend about 20 minutes on **Questions 1 – 14** which are based on Reading Passage 1 below*

Hyperactivity of Children

For children with Attention Deficit Hyperactivity Disorder (ADHD), life can feel like a never-ending video game. They are wired—restless, impulsive, and easily distracted. Their minds are constantly bombarded with different elements of reality that compete for their attention.

So far, the most popular treatment for ADHD has been Ritalin, a rapid-acting stimulant for adults that has the opposite effect in children, calming the jitters associated with the disorder. According to the National Institute of Mental Health, about three percent of American school children take stimulants like Ritalin regularly. However current research suggests a surprising new strategy for treating this disorder: video games linked to brain-wave biofeedback that can help kids with ADHD train their minds to tune in and settle down.

It is difficult for a child with ADHD to learn how to self-regulate and know what it feels like to concentrate. Biofeedback teaches patients to control normally involuntary body functions such as heart rate by providing real-time monitoring of such responses. More than 15 years of studies show that with the aid of a computer display and an EEG sensor attached to the scalp, ADHD patients can learn to modulate brain waves associated with focusing. Increasing the strength of high-frequency beta waves and decreasing the strength of low-frequency theta waves, for example, creates a more attentive state of mind. With enough training, changes become automatic and lead to improvements in grades, sociability, and organizational skills.

Despite its proven success, the technique has not become a mainstream treatment for several good reasons. First, unlike drug therapy, which can have immediate results, a typical course of biofeedback treatment takes a series of about 40 one-hour sessions over a span of several months before benefits become apparent. Second, it is more expensive than drugs. Costs range from $3,000 to $4,000 for these treatments, so insurance companies tend to pick the less expensive option. Finally, biofeedback training requires the very kind of prolonged concentration that patients with ADHD struggle to attain.

Alan Pope, a behavioral scientist at NASA Langley Research Centre in Hampton, Virginia, came up with a more engaging approach through work with NASA flight simulators. He was determining the degree of interaction with cockpit controls necessary to help pilots stay attentive during routine flights. In an experiment, he linked the level of automation in the cockpit to the pilots' brain-wave signals, so that some controls switched from autopilot to manual when the pilot started to lose focus. He found that with practice the pilots could begin to adjust the controls to the level of automation that felt most comfortable by regulating their own brain waves.

Pope applied his findings to help ADHD patients stay focused by rewarding an attentive state of mind. He realized, however, that the simple displays that were already part of biofeedback treat-

ment may not be enough to hold the interest of restless youngsters. He then chose several common video games and linked the biofeedback signal from the player's brain waves to the handheld controller that guides the games' actions. "In one auto-racing game, a car's maximum speed increases if the player's ratio of beta to theta waves improves. The same sort of feedback also controls the steering," Pope says.

In the test, six Sony PlayStation games were used with 22 boys and girls between the ages of nine and thirteen who had ADHD. Half the group received traditional biofeedback training; the other half played the modified video games. After 40 one-hour sessions, both groups showed substantial improvements in everyday brain-wave patterns as well as in tests of measuring attention span, impulsiveness, and hyperactivity. Parents in both groups also reported that their children were doing better in school.

The difference between the two groups was motivation. "In the video-game group, there were fewer no-shows and no dropouts," according to Pope. The parents were more satisfied with the results of the training, and the kids seemed to have more fun.

Since children are more motivated toward video-game biofeedback and may already be familiar with video games, they will not need one-on-one coaching to master the technique. As a result, the cost of the treatment should be reduced and maybe even permit "do-it-yourself" biofeedback. One North Carolina company markets their system as a fun bike helmet and game-like video exercises that work on almost any computer. The helmet is lined with sensors that monitor the child's brain waves, and the child actually controls the computer video exercises by mind alone. Parents should not expect regular video games to help their children. The wrong kinds of video games might actually hurt children with attention disorders.

Parents, however, may be hesitant to switch from traditional treatment programs. One parent whose child currently takes drugs to control ADHD says, "Our son is using drugs to control his attention problems and although we don't like giving him the pills, he is no longer causing problems at school. We try to keep our son away from things that might make him hyperactive. Unless our doctor tells us to do this brain-wave training in a hospital, we are not going to buy a machine to do our own treatment at home."

Brain-wave biofeedback alone may not be a substitute for drug therapy. Professor Stephen Hinshaw, an expert in the field of child clinical psychology at UC Berkeley, gives a reserved opinion about biofeedback treatment. "Biofeedback is a promising potential alternative, but unfortunately the kinds of really well-controlled studies that might support its clinical benefits have yet to be performed." The two treatments have complementary aspects that make them effective as adjuncts. A single dose of Ritalin, for example, acts quickly but only for a few hours, and most patients take it only on school days. Brain-wave regulation takes a long time to learn but has the potential for longer-lasting effects.

Researchers and clinicians are realizing that ADHD is not easily outgrown. Most doctors support an approach that combines good nutrition, sleep, exercise, and learning strategies as well as biofeedback and drug therapy. The possibilities for brain-wave biofeedback are very promising since its benefits could last a lifetime. Video-game biofeedback therapy may provide a more tolerable and long-lasting form of treatment for children through a medium they are more likely to enjoy.

--- Adapted from: www.ocf.berkeley.edu, Gordon Kwan

Questions 1 – 4

Complete the sentences below with words taken from the reading passage.

*Use **NO MORE THAN THREE WORDS** for each answer.*

Write your answers in boxes 1 – 4 on your answer sheet.

1 Easily distracted and impulsive are words that mean the same as __________.

2 Ritalin __________ the jitters in children.

3 Biofeedback helps children to learn how to control __________.

4 ADHD patients struggle to attain __________.

Questions 5 – 8

Do the following statements agree with the views of the writer in Reading Passage 1?

In boxes 5 – 8 write

YES	*if the statement agrees with the views of the writer*
NO	*if the statement contradicts the views of the writer*
NOT GIVEN	*if it is impossible to say what the writer thinks about this.*

5 Pilots naturally are able to regulate their own brain waves.

6 Pope sought to reward his patients' attentive state of mind.

7 Increased theta waves increase the car's maximum speed Pope's auto-racing game.

8 Modified video games produce more substantial improvements than traditional biofeedback training.

Questions 9 – 14

Complete the summary below.

Choose your answers from the box and write them in boxes 9 – 14 on your answer sheet.

***NB** There are more words than spaces so you will not use them all.*

As children find video-game biofeedback more motivating they do not need ___**9**___ training. This results in the ___**10**___ becoming lower. One company has ___**11**___ game-like video exercises that work on almost all computers. Some parents are ___**12**___ to move towards video-game biofeedback. Prof. Hinshaw says that biofeedback is a ___**13**___ alternative but most doctors suggest learning strategies and good ___**14**___ as well as sleep and exercise.

cost	expensive	nutrition
purchased	promising	reluctant
marketed	problems	treatment
willing	personal	

READING PASSAGE 2

*You should spend about 20 minutes on **Questions 15 – 27** which are based on Reading Passage 2 below.*

Questions 15 – 18

*Reading Passage 2 has 8 paragraphs **A – H**.*

*From the list of headings below choose the most suitable headings for paragraphs **A – D**.*

*Write the appropriate numbers **(i – viii)**.*

***NB** There are more headings than paragraphs so you will not use all of them.*

List of Headings

i	Hot water boiler and refrigerator
ii	A period of innovation
iii	Skyscraper and a tall mast
iv	Advanced technology
v	Words for tall buildings
vi	The wall evolution
vii	Hot and cold
viii	From stone to iron

15 Paragraph **A**

16 Paragraph **B**

17 Paragraph **C**

18 Paragraph **D**

SKYSCRAPER

A. The word skyscraper was originally a nautical term for a tall mast or sail on a sailing ship. Today the word is used exclusively to refer to a tall habitable building, usually higher than 150 metres (500 feet). Most skyscrapers serve as office buildings or hotels. The term "high-rise" is also used to describe tall buildings, but it tends to be applied specifically to residential buildings. Modern building of great height, constructed on a steel skeleton originated in the United States.

B. Until the 19th century, buildings of over six stories were rare. It was impractical to have people walk up so many flights of stairs, and water pressure could only provide running water to about 50 feet (15 m). Many mechanical and structural developments in the last quarter of the 19th cent. contributed to the evolution of building. With the perfection of the high-speed elevator after 1887, skyscrapers were able to attain any desired height. The earliest tall buildings were of solid masonry construction, with the thick walls of the lower stories usurping a disproportionate amount of floor space. In order to permit thinner walls through the entire height of the building, architects began to use cast iron in conjunction with masonry. This was followed by cage construction, in which the iron frame supported the floors and the masonry walls bore their own weight.



C. The next step was the invention of a system in which the metal framework would support not only the floors but also the walls. This innovation appeared in the Home Insurance Building in Chicago, designed in 1883 by William Le Baron Jenney — the first building to employ steel skeleton construction and embody the general characteristics of a modern skyscraper. The subsequent erection in Chicago of a number of similar buildings made it the centre of the early skyscraper architecture. In the 1890s the steel frame was formed into a completely riveted skeleton bearing all the structural loads, with the exterior or thin curtain walls serving merely as an enclosing screen.

D. Heating and air conditioning played an important role in the structure of skyscrapers. They are the key units that control the inside atmosphere of all skyscrapers. In the early days, the heat sources in the building came from fireplaces and stoves. Later on heat in the building supplied by the hot water boiler. The boiler heats up the water and sends it out to the radiators through a system of pipes. This was later replaced by central heating furnace with ventilation ducts that channel heat to various areas of the building. Air condition originated from refrigeration. The process of refrigeration is to draw heat away from substances to lower their temperature. Today, the skyscrapers use the central heating

system with ventilation ducts that can be shared with the heating and air conditioning system. Engineers are working on new ways to make heating and air conditioning more efficient and environmental friendly.

E. In 1892 the New York Building Law made its first provisions for skeleton constructions. There followed a period of experimentation to devise efficient floor plans and aesthetically satisfying forms. In 1916, New York City adopted the Building Zone Resolution, establishing legal control over the height and plan of buildings and over the factors relating to health, fire hazard, and assurance of adequate light and air to buildings and streets. Regulations regarding the setting back of exterior walls above a determined height, largely intended to allow light to reach the streets, gave rise to buildings whose stepped profiles characterize the American skyscraper of subsequent years.

F. With the complex structural and planning problems solved, architects still seek solutions to the difficulties of integrating skyscrapers with community requirements of hygiene, transportation, and commercial interest. In New York during the 1950s, public plazas were incorporated into the designs of the Lever House by Gordon Bunshaft and the Seagram Building of Mies van der Rohe. These International style buildings are also examples of the effective use of vast expanses of glass in skyscrapers. More recently, numerous skyscrapers have been constructed in a number of postmodern modes.

G. The cost of building a skyscraper is in hundred million dollars in the current market. The skyscraper is well known for its great height and the social status comes with it, and has always associated with wealth and power. To the general public, big is good; in terms of building, the taller the better. In general, large company or firm would host its head office in these skyscrapers. For example Chrysler had its head office in the Chrysler Building, owned by Chrysler which is one of the big three auto makers. The Sears Tower, the head office for Sears and owned by Sears. It was known for being the worlds' tallest skyscraper in Chicago. Tenants expect clients to know where they are located when they tell them the Sears Tower as their location. These skyscrapers are owned by the wealthy individuals whom are in the upper level of financial social status. There is a sense of prestige for having offices or shops in these skyscrapers.

H. Modern skyscrapers are being redefined by the use of advance technologies. Thanks to the advancement in technology, skyscrapers are able to reach new height easily. It changes the way architects design the structure of these buildings. The new function of the skyscraper is to provide great views, house antennas for communications, telebroadcasting and for entertainment purpose. The use of computer climate control system made the building a more comfortable environment for everyone. The great height of the skyscraper like the Sears Tower, it associates itself with the prestige of being the tallest of all. With the rapid advancement of technology and the influence of fame and wealth, sky will be the only limit for the next generation of skyscrapers.

--- Adapted from: www.goldenessays.com; www.answers.com/topic/skyscraper

Questions 19 – 22

Match the following innovations with A, B, C, and D

A mid 20th century
B late 1880's
C 1890's
D early 1880's

19 the high-speed elevator

20 public square

21 steel framework

22 riveted skeleton

Questions 23 – 27

Do the following statements agree with the information given in Reading Passage 2?

In boxes 23 – 27 on your answer sheet write

TRUE *if the statement is true*
FALSE *if the statement is false*
NOT GIVEN *if the information is not given in the passage.*

23 A skyscraper is both a tall sailing mast and a tall habitable building.

24 A steel frame is able to support both floors and walls.

25 The central heating system provides both heating and air conditioning.

26 In the early 20th century architects solved the problems of mixing skyscrapers with community needs.

27 The higher level the company is situated in a skyscraper, the higher reputation the company holds.

READING PASSAGE 3

*You should spend about 20 minutes on **Questions 28 – 40** which are based on Reading Passage 3 below.*

The Gray Worker

The 21st century may be known as the era of lifelong learning and lifelong working. Retirement, the end stage of a linear working life, may be replaced with a learning, working, leisure, life cycle. Full-time work may be interspersed with periods of flexible working arrangements such as part-time, seasonal, occasional, and project work. The traditional notion of retirement may be replaced with lifelong working-in various positions and in varying amounts of time throughout adult life. In the future a declining birthrate may result in a shortage of skilled and knowledgeable employees, making the notion of retirement for older workers a serious drain on organizational productivity. Increasing demands for work force productivity, a projected shortage of skilled and experienced workers, and older adults who are healthier and living longer than previous generations are powerful societal forces shaping future employment practices.

Two decades ago, Sheppard and Rix forecast the changing nature of the workplace and suggested that keeping older persons in the work force would make sound economic and social policy sense. The trend toward longer periods of employment is beginning to become evident. Forced retirements and early retirement incentives have contributed to the decline of expertise in the workplace. Inflation, increasing health care costs, and inadequate pensions are propelling older adults to remain in or reenter the work force past the traditional retirement age. Retirement as permanent separation from the workplace is being replaced with the idea of bridge employment.

Bridging is a form of partial retirement in which an older worker alternates periods of disengagement from the workplace with periods of temporary, part-time, occasional, or self-employed work. The key aspect of bridging is that it is work in other than a career job. In US, among workers age 60, more than 50 percent retire from a career job but only one in nine actually disengages from the workplace. Bridging allows older workers to "practice" retirement, to fill labor market shortages, or to try a variety of occupational positions after an initial period of retirement.

Bridging is sometimes described as a second career. The American Association of Retired Persons received 36,000 responses to a working life survey, covering 375 job titles from workers age 50 plus who had returned to the workplace after an initial period of retirement. The three most frequently cited reasons for returning included having financial need, liking to work, and keeping busy. However, closer examination of the data revealed that "financial need" included money to help the children as well as to meet basic needs. "Liking to work" included feeling successful, enjoying the excitement of the workplace, and making a contribution. "Keeping

busy" included working with a spouse, staying healthy, or fulfilling a social need. Reasons cited for remaining or returning to the workplace expressed the social meaning of work. Ginzberg proposed that work provides income, status, and personal achievement; structures time; and provides opportunities for interpersonal relationships. In the study by Stein, Rocco, and Goldenetz in 2000, older workers remaining in or returning to the workplace mentioned not planning wisely, the need to contribute, appreciation from others, and the desire to create something as reasons for not retiring from the workplace. Work is more than earning a living. It is a way to live.

To some extent older workers remain in the workplace because they are healthier, cognitively able, and want to remain engaged. In a review of older worker studies, Rix concluded that many aging workers continue to work at peak efficiency and that there is usually much more variation within age groups than among age groups. Shea summarized the studies on older workers by pointing out that "age-related changes in physical ability, cognitive performance, and personality have little effect on workers' output except in the most physically demanding tasks". Farr, Tesluk, and Klein found that there is no consistent relationship between age and performance across settings. Among faculty in the sciences, age had a slight negative relationship to publishing productivity. Some studies have shown a stronger negative relationship between age and work performance for nonprofessional and low-level clerical jobs than for higher-level craft, service, and professional jobs.

With declining birthrates and an anticipated shortage of new entrants to the work force, early retirement will become an issue for organizations to explore in more detail. Organizations will need to assess the consequences to profits and productivity of encouraging talented and wise elders to exit the work force. As a society we need to recognize all of the costs of supporting a nonworking population capable of productive work and living healthier and longer lives.

Organizations need to rethink allocating opportunities to older workers as well as changing the attitudes and expectations of managers and younger employees toward an increasing number of older workers. There is a growing interest among organizations to reengineer the work environment to account for physiological changes due to aging and to reorganize work schedules to account for seasonal or contingent labour pools composed of older workers. Few positions in our information society remain static and do not require some type of education. Education and job redesign are the means by which the older segment of the community can enter, reenter, and advance in the workplace.

Older workers represent a rich source of experience, accumulated knowledge, and wisdom. The quality and sensitivity of an institution's program for counseling, training, retraining, and preparing older workers for life and career transition might be the means by which organizations recruit and retain valued and productive workers.

--- Adapted from: www.otan.us, David Stein

Questions 28 – 31

Choose the appropriate letters A – D and write them in boxes 28 – 31 on your answer sheet.

28 Organizational productivity will seriously be affected in future by

A older adults who are healthier.

B the declining birthrate.

C lifelong working.

D the retirement of older workers.

29 Older adults are returning to the workplace because of

A early retirement incentives.

B the decline of expertise.

C cost of living.

D forced retirements.

30 Partial retirement is a key opportunity for older workers to

A continue their career.

B try a new job.

C disengage from the workplace.

D remain in their job.

31 One reason not mentioned for returning to the workplace was

A appreciation from others.

B meeting basic needs.

C feeling successful.

D keeping fit.

Question 32

*Answer the following question, **USING NO MORE THAN THREE WORDS** from the passage for each blank.*

32 Name the three reasons for not retiring from the workplace, according to the study in 2000.

______________ , ______________ , and ______________

Questions 33 – 36

Complete the summary below.

Choose ***NO MORE THAN THREE WORDS*** *from the passage for each answer.*

Rix found that many older workers ___**33**___ at maximum efficiency while Shea found that age-related changes had ___**34**___ on their productivity unless they had jobs that were ___**35**___ According to Farr, Tesluk and Klein there was a ___**36**___ relationship in higher-level professions.

Questions 37 – 39

Do the following statements agree with the information given in Reading Passage 3?

In boxes 37 – 39 on your answer sheet write

TRUE	*if the statement is true*
FALSE	*if the statement is false*
NOT GIVEN	*if the information is not given in the passage.*

37 Organizations need to examine in more detail the reasons of declining birthrates.

38 Profits and productivity of organizations may fall because of early retirement.

39 Older workers will be needed in the education and design fields.

Question 40

From the list below choose the most suitable title for the whole of Reading Passage 3.

A The New Meaning of Retirement

B Warning, the Society is Aging

C Reasons for Not Retiring

D Liking to Work

E Concern about Future Employment

INTERNATIONAL ENGLISH LANGUAGE TESTING SYSTEM

ACADEMIC READING

TEST 3

TIME ALLOWED: 1 hour
NUMBER OF QUESTIONS: 40

INSTRUCTIONS

WRITE ALL YOUR ANSWERS ON THE ANSWER SHEET

The test is in 3 sections:

Reading Passage 1	Questions 1 – 13
Reading Passage 2	Questions 14 – 26
Reading Passage 3	Questions 27 – 40

Remember to answer all the questions. If you are having trouble with a question, skip it and return to it later.

READING PASSAGE 1

*You should spend about 20 minutes on **Questions 1 – 13** which are based on Reading Passage 1 below.*

INTERPRETATION

Translation and interpretation are the ultimate jobs for people who love language. However, there are a lot of misunderstandings about these two fields, including the difference between them and what kind of skills and education they require.

For some reason, most laypeople refer to both translation and interpretation as "translation". Although translation and interpretation share the common goal of taking information that is available in one language and converting it to another, they are in fact two separate processes. So what is the difference between translation and interpretation? It's very simple. Translation is written — it involves taking a written text (such as a book or an article) and translating it in writing into the target language. Interpretation is oral — it refers to listening to something spoken (a speech or phone conversation) and interpreting it orally into the target language. Incidentally, those who facilitate communication between hearing persons and deaf/hard-of-hearing persons are also known as interpreters. This might seem like a subtle distinction, but if you consider your own language skills, the odds are that your ability to read/write and listen/speak are not identical — you are probably more skilled at one pair or the other. So translators are excellent writers, while interpreters have superior oral communication skills. In addition, spoken language is quite different from written, which adds a further dimension to the distinction. Then there's the fact that translators work alone to produce a translation, while interpreters work with two or more people/groups to provide an interpretation on the spot during negotiations, seminars, phone conversations, etc.

There are two types of interpretation: simultaneous and consecutive interpretation. The main difference between them lies in the time lag between the original speech and the interpretation into the foreign language. Simultaneous is "continuous flow" whereas consecutive has a "stop-and-go" rhythm. It is comparable to the difference between doing consecutive and concurrent time.

Simultaneous is real-time interpreting: speakers talk as they normally would, without pause, as the interpreter listens to one language and speaks in another, all at the same time (hence the term simultaneous), with the voices overlapping, though the speaker's voice is dominant and the interpreter whispers into a microphone. It is also known as U.N.-style interpreting. Simultaneous interpreting is the only way to provide a running rendition of everything said in the courtroom by judge, counsel, witnesses, etc., without requiring the original speaker to stop after every sentence. Few people can interpret simultaneously at a high level of accuracy (80% or better) , regardless of their ability to speak the two languages in question. Simultaneous interpretation calls for concentration, mental flexibility, and wide-ranging vocabulary in both languages. Research has shown that 23 cognitive skills are involved in simultaneous interpreting. Current neurological

research reveals that interpreting draws heavily upon both left-brain and right-brain functions.

Consecutive interpreting involves a pause between language conversions: first the interpreter listens to the entire original phrase or passage, then interprets it into the other language. This mode is used for Q & A of non-English speaking witnesses, and requires more waiting time. It is important for the interpreter not to be seen whispering to the witness, for that would convey intimacy or collusion to the jury. It is equally important for anyone else in the courtroom to hear the interpreter's choice of words so that the transparency of the proceedings be evident. Consecutive interpreting calls for excellent short-term and long-term memory, note-taking skills, a grasp of subtle nuances in both languages, and a mastery of speaking styles so as to preserve the "flavor" of a witness.

Then, which is harder to do, simultaneous or consecutive? It is a matter of preference, skills and practice. Simultaneous involves more diverse brain functions and most people need special training and much practice to acquire the skill. However, consecutive, especially at the witness stand, is not easy, either, and is more stressful because everyone is watching and the interpretation is always open to criticism. In some situations, such as attorney-client interviews, interpreters may use a combination of both techniques so as not to lose the flow of natural conversation. However, it is difficult to interpret simultaneously without equipment, because at close quarters, both voices overlap, and it will be hard to hear either the original or the interpretation.

Interpreting, whether done simultaneously or consecutively, is mentally taxing and requires much more concentration than that required for ordinary speaking. Interpreters in a courtroom are under oath to be completely accurate as well as fair and impartial, which creates significant pressure. (One research panel likened the stress level to greater than that experienced by a neurosurgeon while operating.) Studies show that significant errors in meaning occur after 30-45 minutes on task in simultaneous interpretation. For this reason, all international agencies (U.N., European Commission, etc.) follow a policy of providing for rotation of interpreters every 30 minutes. The Southern District Interpreters Office follows this policy as well in providing a team of two interpreters for every trial or long proceeding.

Why do interpreters need remote equipment; why can't they just sit next to the person and whisper? Imagine if you had to whisper your entire opening statement to an agent at counsel table while at the same time listening to someone else speak. Remote equipment has many advantages: the interpreter has an unobstructed view of the speakers; the interpreter can move if there are audibility problems; the interpreter is free to concentrate on the message without interruption or distraction; and the team can function smoothly by relaying on the microphone at convenient times. Also, since the equipment can transmit on two channels, two different languages can be broadcast at once (with a separate interpreter in each language), and there can be more than one person listening.

--- Adapted from: www.nysd.uscourts.gov
french.about.com

Questions 1 – 5

Classify the following descriptions as referring to

T Translation
I Interpretation
S Simultaneous interpretation
C Consecutive interpretation

1 It requires more concentration than usual.

2 It requires good memory.

3 It requires flexible mind.

4 It is more likely to receive criticism.

5 People work alone to accomplish it.

Questions 6 – 9

Choose the appropriate letters A – D and write them in boxes 6 – 9 on your answer sheet.

6 Interpreters are different from translators because they
A write well.
B only work with the hard-of-hearing.
C are good at both written and oral communication.
D work with peers.

7 Real-time interpreting involves
A the original speaker stopping after every sentence.
B the original speaker whispering.
C the interpreter being dominant.
D the interpreter overlapping.

8 The two things that are important in the courtroom are

A intimacy and collusion.

B whispering and hearing.

C not whispering and hearing.

D not whispering and not hearing.

9 Interpreting for witnesses in the courtroom is

A critical.

B stressful.

C easier.

D lonely.

Questions 10 – 13

Complete the summary below.

*Choose **NO MORE THAN THREE WORDS** from the passage for each answer.*

Courtroom interpreters are under great ____**10**____ and have to be accurate and impartial. So interpreters are ____**11**____ every half-hour. Interpreters use remote equipment so they can have a clear ____**12**____ of the speakers, can move freely and enable multiple ____**13**____ to be transmitted.

READING PASSAGE 2

*You should spend about 20 minutes on **Questions 14 – 26** which are based on Reading Passage 2 below.*

Animal Consciousness

There are some fundamental assumptions lurking behind the idea that the burden of proof in discussions of animal consciousness lies with those who would argue for it, as opposed to those who would argue against. We should refrain from offering complex explanations when more simple explanations suffice. Therefore, we should not claim that consciousness exists in animals if simplier explanations can account for the observed behaviors. The assumption here is that there is an ascending hierarchy of mental capabilities or functions, with consciousness at the top.

On Gallup's view we have consciousness, self-consciousness and consciousness of other minds stacked at the top. Beneath this top level are abilities like learning, memory, and so on that can occur in blank minds. Phenomenal consciousness does not constitute a level of its own. For Povinelli, phenomenal consciousness may have its own level, beneath the level where we find theory of mind and self-consciousness. Both investigators make the common assumption that many mental functions are mere mechanisms requiring no awareness for their function, mechanisms that inhabit lower levels of the hierarchy. Animal minds should be explained at the lowest level of the hierarchy that can account for the observed behaviors. This highly mechanistic view of animal minds is a direct inheritance from certain recurrent themes in our western intellectual tradition. It has ancient roots (both in Greek philosophy and Christianity) in a form of speciesism that places humans at the top of the psychological and biological heap.

In Descartes, this view takes the form of a mind-body dualism in which our mental nature is markedly different from and superior to our bodily nature. When cast in evolutionary terms it is the view that human consciousness is the most highly evolved mental function in the animal kingdom. Combined with the notion that animals do not have minds (or souls) at all, such views helped to justify the beginnings of animal experimentation.

We essentially have two parallel hierarchies that are assumed to map onto one another. The biological hierarchy has humans at the top, followed by other primates, then "lower animals" of all sorts. The psychological hierarchy has consciousness at the top (maybe self-consciousness above it), complex cognition (memory, learning, etc.) below, and behavior at the bottom. The assumptions here are that the higher levels are more complex. This assumption is incorporated into cognitive models of consciousness that place consciousness at the center or top



of the information processing system, and in evolutionary explanations of consciousness that argue for its role in dealing with the demands of more complex information processing systems interacting with more complex environments.

In a 1998 article in the Journal of *Consciousness Studies* entitled "Consciousness: A Natural History", Maxine Sheets Johnstone questions the correctness of these hierarchical conceptions and of the assumption that "unconsciousness historically preceded consciousness" in animals. She suggests that proprioception may be the first evolved form of consciousness. The evolution of proprioception, she proposes, parallels the evolution of animate forms, such that from the very beginning of the ability of organisms to move, there was a need for a kind of flexible responsivity to external stimuli. It is arbitrary, she argues, to call this responsivity behavioral or cognitive when referring to "lower animals" and conscious when referring to humans or "higher animals". The fact that this is frequently done has much to do, she claims, with our brain-centred notions of consciousness that disregard more embodied sensory abilities. She notes that the first human sense to develop is proprioception, and it is through this sense that we initially come to learn to move our bodies and to feel ourselves. This is a sense that we share with many "simple" creatures. Whatever the animal, its movement cannot be absolutely programmed such that, for example, at all times its particular speed and direction of movement, its every impulse and stirring, its every pause and stillness, run automatically on something akin to a lifetime tape. Offering mechanistic explanations for animal behaviors may reveal more about one's commitment to certain assumptions about the mappings between certain presupposed biological and psychological hierarchies of complexity than it does about one's commitment to parsimony of explanation.

The notion of some sort of phylogenetic hierarchy in the mental capacity of animals (and thus, presumably, in ability to suffer) long predates the development of evolutionary theory and human knowledge of the similarities and differences between human and non-human nervous systems. Indeed, the fact that very young children will spontaneously talk to "higher" animals, but only talk about "lower" ones, such as invertebrates, suggests that human beings may hold a deep-rooted sense of their greater and lesser connectedness with different species. Meantime, although the animal rights philosopher Singer appears to reject speciesism in principle, many of the animal rights campaigners did, in fact, perceive important differences between "higher" and "lower" animals in their ability to suffer.

--- Adapted from: the publications of the University of Arizona

Questions 14 – 21

*Use the information in the passage to match the people (listed **A – E**) with opinions (listed 14 – 21) below.*

*Write the appropriate letter (**A – E**) in boxes 14 – 21 on your answer sheet.*

A Gallup
B Pvinelli
C Gallup and Pvinelli
D Descartes
E Maxine Sheets Johnstone

14 The responsivities of the humans and animals have the same origin.

15 Phenomenal consciousness is beneath the self-consciousness level.

16 Animals do not behave fully automatically.

17 There is no independent level of phenomenal consciousness.

18 Animal minds are very mechanistic.

19 Humans have both mental and bodily natures.

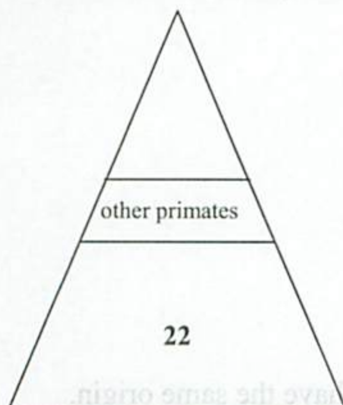
20 Memory is at the second level in the psychological hierarchy.

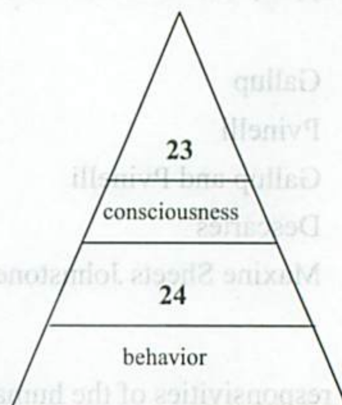
21 Animals behave without awareness.

Questions 22 – 24

Based on the hierarchy theories, complete the diagrams below.

*Choose **NO MORE THAN THREE WORDS** from Reading Passage 2 for each answer.*





Questions 25 – 26

*Choose **NO MORE THAN THREE WORDS** from Reading Passage 2 for each answer.*

25 It is a common situation that very young children will talk with ________________ spontaneously.

26 According to the passage, the mind-body dualism may be used to defend the operation of ________________

READING PASSAGE 3

*You should spend about 20 minutes on **Questions 27 – 40** which are based on Reading Passage 3 below.*

Questions 27 – 31

*Reading Passage 3 has 9 paragraphs **A – I**.*

*From the list of headings below choose the five most suitable headings for paragraphs **A, B, D, E** and **F**.*

*Write the appropriate numbers (**i – x**).*

***NB** There are more headings than paragraphs so you will not use all of them.*

List of Headings

i	The effects of the great events on mapmaking
ii	Commercial centres shift; mapmakers follow
iii	From copper to computers
iv	From plaster to paper
v	The first atlas was born
vi	A guide for Roman travellers
vii	Columbus' discovery of the New World
viii	Trade and military contribute to map production
ix	Atlas of cities and seas
x	The best-seller in 1572

Example	*Answer*
Paragraph **C**	**I**

27 Paragraph **A**
28 Paragraph **B**
29 Paragraph **D**
30 Paragraph **E**
31 Paragraph **F**

Map and Atlas



A. No one knows when the first map was made. Perhaps it was some paleolithic hunter scratching lines in the earth to direct his comrades to where he had seen prey. The oldest surviving physical object which could be called a map is a wall painting of a town plan at the archeological site in Anatolia, Turkey. Radiocarbon examination dates it from about 6200 B.C. Maps are known from classical times — a clay tablet with a city plan from Mesopotamia; a world map on bronze supposedly shown to the King of Sparta circa 500 B.C.; an Egyptian papyrus showing a gold mine.

B. Perhaps the most celebrated of ancient maps is the Peutinger Table which survives at the Royal Library of Vienna. It is a 12th or 13th century manuscript copy of a road map of the Roman Empire which was probably created in the 5th century A.D. During the Middle Ages most maps were either of small local areas or were cosmic maps of the world. The former were for land ownership purposes, and the latter were cosmological — providing inspiration about the place of this world in relation to the next. It is possible the world maps could also have been helpful to travelers, though only the largest contained enough detail to be of much use.

C. All the above maps were manuscript, i.e., made by hand. In the 15th century European mapmaking was influenced by several events. One was the invention of movable type by Gutenberg circa 1555, which led to the extensive production of printed books. Some books, such as geographies needed maps, creating a demand for printed maps. Another great event was the rediscovery of Ptolemy in the West. Ptolemy (circa 150 A.D.) was a scholar of Alexandria, Egypt whose *Geographia* explained his system of coordinates for locating places on the map. It included coordinates for several thousand places. This great work was lost to the west for over a thousand years, but was retained in the East. As the Byzantine Empire came under pressure from the Turks, refugees fled west taking their possessions with them, including texts of the *Geographia*.

D. Then came a third great event, Columbus' discovery of the New World. The discovery effectively stopped creation of printed world maps for more than a decade as the information was absorbed and interpreted. By the early 1500's mapmakers were getting lots of new data to put on their maps; not just of the New World, but also of Africa and Asia. Some of the best early mapmakers were in Italy. The Italian city-states were leading centers of trade and had great interest in anything that might affect their commerce. This was part of a pattern which was repeated over the centuries — leadership in mapmaking went along with commercial and mili-

tary prominence. Maps were essential tools of both commerce and war.

E. As the century went on trade shifted to western Europe and the major ports of the Low Countries became important commercial centres, as well as places of map production. It was there that on May 20, 1570 Abraham Ortelius produced what is generally regarded as the first modern atlas. It was titled *Theatrum Orbis Terrarum* and contained 53 maps, all uniform in size and style. The maps were entirely modern, as Ortelius had sought the best available maps and then redesigned them to a standard format to fit his atlas. The *Theatrum* was an immediate success, going through four printings in its first year. It continued through more than 40 editions over the next generation.

F. In 1572 Georg Braun and Frans Hogenberg published the *Civitates Orbis Terrarum,* the first atlas of city views and plans. It too became a best-seller of its time. A third important work soon emerged. Lucas Jansz Waghenaer created the *Speighel der Zeevaerdt,* the first atlas of sea charts. The charts were engraved by the van Deutecom brothers and are as artistic as they are functional.

G. At the same time Gerard Mercator was busily creating maps. He and Ortelius were friends as well as colleagues. Mercator was of a more scholarly temperament and his productions came forth more slowly. Before creating a modern atlas he wanted to produce a definitive edition of Ptolemy, which was published in 1578. He was the first to use the term "atlas" as the name of a book of maps. Sections of his modern atlas began to appear in the 1580's, and the complete work was issued by his heirs in 1595, the year after his death.

H. In 1662 an extraordinary atlas was published. It was Joan Blaeu's *Grand Atlas* or *Atlas Major* with approximately 600 beautifully-engraved maps on thick paper in ten to twelve volumes depending on the edition. Lavish versions were issued with sumptuous bindings and brilliant coloring; sometimes they were purchased by the Dutch Republic as gifts for royalty and other notable personages. The *Grand Atlas* was to normal atlases as a Rolls Royce is to an ordinary sedan.

I. The 17th- and 18th-century maps were printed by copper engraving, a process introduced in Europe in the 16th century. Various specialists associated with the print shop worked to produce a map: the mapmaker, the engraver, the printer, the papermaker, the colorist. Since map dealers and printers were usually licensed separately, a dealer would sell the maps from his own shop, either separately or bound together in an atlas. Maps and atlases were also sold at publishers' book and map fairs across Europe. This basic process of map and atlas production and distribution continues to this day around the world, although computer graphics have replaced copper engraving.

--- Adapted from: www.nypl.org

www.ritzlin.com

Questions 32 – 35

Match the following events with their corresponding date

A 1555

B 1570

C early 1570's

D late 1570's

E by 1600

32 More than 40 editions printed

33 The *Geographia* reprinted

34 The first modern maps printed

35 The first atlas of city view published

Questions 36 – 40

Do the following statements agree with the information given in Reading Passage 3?

In boxes 36 – 40 on your answer sheet write

YES	*if the statement agrees with the writer*
NO	*if the statement contradicts the writer*
NOT GIVEN	*if there is no information about this in the passage.*

36 In the Royal Library there is a hand-written Roman map.

37 Guttenberg was the first to print maps.

38 The best early mapmakers were in Italy because there were many warfares.

39 The price and quality of the *Grand Atlas* are far superior to those of normal atlases.

40 Ortelius was the first to use the term "atlas" to describe a book of maps.

INTERNATIONAL ENGLISH LANGUAGE TESTING SYSTEM



ACADEMIC READING TEST 4

TIME ALLOWED: 1 hour

NUMBER OF QUESTIONS: 40

INSTRUCTIONS

WRITE ALL YOUR ANSWERS ON THE ANSWER SHEET

The test is in 3 sections:

Reading Passage 1	Questions 1 – 13
Reading Passage 2	Questions 14 – 27
Reading Passage 3	Questions 28 – 40

Remember to answer all the questions. If you are having trouble with a question, skip it and return to it later.

READING PASSAGE 1

*You should spend about 20 minutes on **Questions 1 – 13** which are based on Reading Passage 1 below.*

Orientation of Birds



A. Most of the effort applied to understanding how birds make a migratory flight has been directed toward environmental cues that birds use to maintain a particular flight direction. These cues are landmarks on the Earth's surface, the magnetic lines of flux that longitudinally encircle the Earth, both the sun and the stars in the celestial sphere arching over the Earth, and perhaps prevailing wind direction and odors.

B. Landmarks are useful as a primary navigation reference only if the bird has been there before. For cranes, swans, and geese that migrate in family groups, young of the year could learn the geographic map for their migratory journey from their parents. But most birds do not migrate in family flocks, and on their initial flight south to the wintering range or back north in the spring must use other cues. Yet birds are aware of the landscape over which they are crossing and appear to use landmarks for orientation purposes. Radar images of migrating birds subject to a strong crosswind were seen to drift off course, except for flocks migrating parallel to a major river. These birds used the river as a reference to shift their orientation and correct for drift in order to maintain the proper ground track. That major geographic features like Point Pelee jutting into Lake Erie or Cape May at the tip of New Jersey are meccas for bird-watchers only reflects the fact that migrating birds recognize these peninsulas during their migration. Migrating hawks seeking updrafts along the north shore of Lake Superior or the ridges of the Appalachians must pay attention to the terrain below them in order to take advantage of the energetic savings afforded by these topographic structures.

C. Since humans learned to use celestial cues, it was only natural that studies were undertaken to demonstrate that birds could use them as well. Soon after the end of the Second World War, Gustav Kramer showed that migratory European Starlings oriented to the azimuth of the sun when he used mirrors to shift the sun's image by ninety degrees in the laboratory and obtained a corresponding shift in the birds' orientation. Furthermore, since the birds would maintain a constant direction even though the sun traversed from east to west during the day, the compensation for this movement demonstrated that the birds were keeping time. They knew what orientation to the sun was appropriate at 9 a.m. They knew what different angle was appropriate at noon, and again at 4 p.m. It has been recently shown that melatonin secretions from the light-sensitive pineal gland on the top of the bird's brain are involved in this response. Not only starlings but homing pigeons, penguins, waterfowl, and many species of perching birds have been shown to use solar orientation. Even nocturnal migrants take directional information from the sun. European Robins and Savannah Sparrows that were prevented from seeing the setting sun did not orient under the stars as well as birds that were allowed to see the sun set. Birds can detect polarized light from sunlight's penetration through the atmosphere, and it has been hypothesized that the pattern of polarized light in the evening sky is the primary cue that provides a reference for their orientation.

D. Using the artificial night sky provided by planetariums demonstrated that nocturnal migrants respond to star patterns (quite analogous to Kramer's work on solar orientation, Franz Sauer demonstrated that if the planetarium sky is shifted, the birds make a corresponding shift in their orientation azimuth). Steve Emlen was able to show that the orientation was not dependent upon a single star, like Polaris, but to the general sky pattern. As he would turn off more and more stars so that they were no longer being projected in the planetarium, the bird's orientation became poorer and poorer. While the proper direction for orientation at a given time is probably innate, Emlen was able to show that knowing the location of "north" must be learned. When young birds were raised under a planetarium sky in which Betelgeuse, a star in Orion of the southern sky, was projected to the celestial north pole, the birds oriented as if Betelgeuse was "north" when they were later placed under the normally orientated night sky, even though in reality it was south!

E. Radar studies have shown that birds do migrate above cloud decks where landmarks are not visible, under overcast skies where celestial cues are not visible, and even within cloud layers where neither set of cues is available. The nomadic horsemen of the steppes of Asia used the response of lodestones to the Earth's magnetic field to find their way, and the hypothesis that migrating birds might do the same was suggested as early as the middle of the nineteenth century. Yet it was not until the mid-twentieth century that Merkel and Wiltschko demonstrated in a laboratory environment devoid of any other cues that European Robins would change their orientation in response to shifts in an artificial magnetic field that was as weak as the Earth's natural field. Although iron-containing magnetite crystals are associated with the nervous system in homing pigeons, Northern Bobwhite, and several species of perching birds, it is unknown whether they are associated with the sensory receptor for the geomagnetic cue. An alternate hypothesis for the sensory receptor suggests that response of visual pigments in the eye to electromagnetic energy is the basis for geomagnetic orientation. It has been shown, however, that previous exposure to celestial orientation cues enhances the ability of a bird to respond more appropriately when only geomagnetic cues are available.

F. Radar observations indicate that birds will decrease their air speed when their ground speed is augmented by a strong tail wind. We also know that birds can sense wind direction as gusts ruffling the feathers stimulate sensory receptors located in the skin around the base of the feather. Since there are characteristic patterns of wind circulation around high and low pressure centers at the altitude most birds migrate, it has been hypothesized that birds could use these prevailing wind directions as an orientation cue. However, there presently is no experimental support for this hypothesis.

G. The sense of smell in birds was considered for a long time to be poorly developed, but more recent evidence suggests that some species can discriminate odors quite well. If the olfactory nerves of homing pigeons are cut, the birds do not return to their home loft as well as birds whose olfactory nerves were left intact. A similar experiment has demonstrated that European Starlings with severed olfactory nerves returned less often than unaffected control birds even at distances as great as 240 km from their home roosts. And even more interesting, when these starlings returned to the nesting area the following spring, the starlings with nonfunctioning olfactory nerves returned at a significantly lower frequency than the other starlings.

H. Considering the array of demonstrated and suggested cues that birds might use in their orientation, it is clear that they rely upon a suite of cues rather than a single cue. For a migrating bird this redundancy is critical, since not all sources of orientation information are equally available at a given time, nor are all sources of information equally useful in a given situation.

--- Adapted from: www.npwrc.usgs.gov

Questions 1 – 4

Reading Passage 1 has 8 paragraphs A – H.

Which paragraphs state the following information?

Write the appropriate letters A – H in boxes 1 – 4 on your answer sheet.

1 The birds used a combination of clues to cope with the versatile environment.

2 After some nerves were cut off, the birds cannot orient as usual.

3 Disoriented cues were made in the experiments.

4 The birds that always migrate alone could not use this clue.

Questions 5 – 7

Complete the table below.

*Choose **NO MORE THAN THREE WORDS** from the passage for each answer.Table*

Researcher	Bird species	Cues
Gustav Kramer	**5**	Celestial
6	Nocturnal migrants	Disappearing cues
Merkel and Wiltshko	European robins	**7**

Questions 8 – 13

Do the following statements agree with the information given in Reading Passage 1?

In boxes 8 – 13 on your answer sheet write

YES	*if the statement agrees with the writer*
NO	*if the statement contradicts the writer*
NOT GIVEN	*if there is no information about this in the passage.*

8 A migratory flight is not affected by strong crosswinds if birds are flying along major rivers.

9 Some nocturnal migrants are able to use solar cues even if stopped from seeing the setting sun.

10 Experiments show that the fewer the stars in the sky the poorer the bird's orientation.

11 Sensory receptors as well as the nervous system strengthen birds' ability to orientate geomagnetically.

12 The greater the distance from their home roosts the less likely homing pigeons will find their way home.

13 It is unnecessary for birds to count on several cues in their orientation.

READING PASSAGE 2

*You should spend about 20 minutes on **Questions 14 – 27** which are based on Reading Passage 2 below.*

Development of Mathematics

The earliest records of mathematics show it arising in response to practical needs in agriculture, business, and industry. In Egypt and Mesopotamia, where evidence dates from the second and third millennia B.C., it was used for surveying and mensuration and estimates of the value of π are found in both locations. There were some similar developments in China during this same period. The first true evidence of mathematical activity in China can be found in numeration symbols on tortoise shells and oracle bones, dated from the Shang dynasty (14th Century B.C.). According to legend, a mythological Emperor Yu received a divine gift from a Lo river tortoise. The gift was in the form of diagrams called Lo Shu, which was believed to contain the principles of Chinese mathematics. One diagram, the magic square, was thought to possess magical qualities, and led to the development of the dualistic theory of *yin*, representing even numbers, and *yang*, odd numbers. In general, early mathematics is generally empirical, arrived at by trial and error as the best available means for obtaining results, with no proofs given. However, it is now known that the Babylonians were aware of the necessity of proofs prior to the Greeks, who had been presumed the originators of this important step.



The Lo Shu

A profound change occurred in the nature and approach to mathematics with the contributions of the Greeks. The earlier period is represented by Thales (6th Century B.C.), Pythagoras, Plato, and Aristotle. The later period of Greek science is associated with the school of Alexandria. The greatest work of Greek mathematics, *Euclid's Elements* (c.300 B.C.), appeared at the beginning of this period. Elementary geometry as taught in high school today is still largely based on Euclid's presentation, which has served as a model for deductive systems in other parts of mathematics and in other sciences.

In the third Century B.C., Archimedes, in addition to his work in mechanics, made an estimate of π. Following the decline of learning in the West after the 3rd Century, the development of mathematics continued in the East. In China, Tsu Ch'ung-Chih estimated π by inscribed and circumscribed polygons, and in India the numerals now used throughout the civilized world were invented. Europe got its early arithmetic and algebra from the Arabs — hence the Arabic numerals — but the Arabs themselves had previously taken them from India. In Egypt, Ibn al-Haytham was concerned with the solids of revolution and geometrical optics.

Word of the Chinese and Middle Eastern works began to reach the West in the 12th and 13th Century. One of the first important European mathematicians was Leonardo da Pisa, who wrote on arithmetic, algebra and geometry. The 17th Century, however, saw the greatest

revolution in mathematics, as the scientific revolution spread to all fields. Decimal fractions were invented by Simon Stevin and logarithms by John Napier and Henry Briggs; number theory was greatly extended by Pierre de Fermat; and the theory of probability was founded by Pascal, Fermat, and others. The greatest mathematical advances of the 17th Century, however, were the invention of analytic geometry by René Descartes and that of the calculus by Isaac Newton and, independently, by G. W. Leibniz. Descartes's invention made possible the expression of geometric problems in algebraic form and vice versa. It was indispensable in creating the calculus, which built upon and superseded earlier special methods for finding areas, volumes, and tangents to curves, developed by F. B. Cavalieri, Fermat, and others. The calculus is probably the greatest tool ever invented for the mathematical formulation and solution of physical problems.

The history of mathematics in the 18th Century is dominated by the development of the methods of the calculus and their application to such problems, both terrestrial and celestial, with leading roles being played by the Bernoulli family. Important advances in geometry began toward the end of the century with the work of Gaspard Monge in descriptive geometry and in differential geometry and continued through his influence on others, e.g., his pupil J. V. Poncelet, who founded projective geometry.

The modern period of mathematics dates from the beginning of the 19th Century, and its dominant figure is C. F. Gauss. In the area of geometry Gauss made fundamental contributions to differential geometry, did much to found what was first called analysis situs but is now called topology, and anticipated the great breakthrough of non-Euclidean geometry. In the area of arithmetic, number theory, and algebra, Gauss again led the way. He established the modern theory of numbers, gave the first clear exposition of complex numbers, and investigated the functions of complex variables. Still another influence of Gauss was his insistence on rigorous proof in all areas of mathematics.

In the 20th Century the trend has been toward increasing generalization and abstraction, with the elements and operations of systems being defined so broadly that their interpretations connect such areas as algebra, geometry, and topology. The key to this approach has been the use of formal axiomatics, in which the notion of axioms as "self-evident truths" has been discarded. Instead the emphasis is on such logical concepts as consistency and completeness. The roots of formal axiomatics lie in the discoveries of alternative systems of geometry and algebra in the 19th Century; the approach was first systematically undertaken by David Hilbert in his work on the foundations of geometry.

Mathematical knowledge in the modern world is advancing at a faster rate than ever before. The invention of the programmable digital computer has played an essential role in the development of mathematics. It has given great impetus to areas of mathematics such as numerical analysis and finite mathematics. It has suggested new areas for mathematical investigation, such as the study of algorithms. It has also become a powerful tool in areas as diverse as number theory, differential equations, and abstract algebra. In addition, the computer has made possible the solution of several long-standing problems in mathematics.

--- Adapted from: The Columbia Electronic Encyclopedia, 6th ed

Questions 14 – 18

Do the following statements agree with the information given in Reading Passage 1?

In boxes 14 – 18 on your answer sheet write

TRUE	*if the statement is true*
FALSE	*if the statement is false*
NOT GIVEN	*if the information is not given in the passage.*

14 The Chinese mathematical system has developed on the basis of Lo Shu.

15 Babylonians are deemed as the originators of mathematics.

16 It is Archimedes who made the first estimate of π.

17 Tsu Ch'ung-Chih estimated π after Archimedes.

18 Arabs invented the Arabic numerals being used today.

Questions 19 – 23

Use the information in the passage to match the people (listed A – E) with his or her great contribution to the development of mathematics (listed 19 – 23) below.

Write the appropriate letter (A – E) in boxes 19 – 23 on your answer sheet.

A G.W. Leibniz
B Gaspard Monge
C Simon Stevin
D Euclid
E Gauss

19 decimal fractions

20 elementary geometry

21 descriptive geometry

22 complex numbers

23 calculus

Questions 24 – 27

Complete the summary below.

Choose ***NO MORE THAN THREE WORDS*** *from the passage for each answer.*

In the 20th Century the application of ___24___ makes it feasible to ___25___ and ___26___ such a broad mathematical system. And nowadays, the computer is ___27___ to the modern development of mathematics.

READING PASSAGE 3

*You should spend about 20 minutes on **Questions 28 – 40** which are based on Reading Passage 3 below.*

African Transportation

Africa south of the Sahara is home to the majority of the world's poorest countries and millions of Africans must live on less than a dollar a day. There are many reasons why the continent has not benefited from the growth in the global economy. One of the most telling — and most frequently overlooked — is transport, or the lack of it.

The development of the community starts with the road. Roads not only provide access to markets, but also access to healthcare and schools. But even with a road, without low-cost transport millions of African's have a long walk to their destinations.

Rural Africa is a place where people walk — to fetch water and firewood, to travel to the market, to tend to the fields and to get to school. Trips of up to 20 kilometres that take more than two days are common. In Kindia, Guinea, women travel up to three hours to reach the local market, carrying as much as 30 kilos of produce on their backs. Local transport, in the form of trucks, is available but often overcrowded and expensive leaving women little option but to walk.

In colonial times and since independence, the decision-makers in town have poorly served Africans living in the countryside. Then, prestige projects that did little to improve their lot were in favour. But there are signs of change.

If poverty in rural Africa is to be addressed, ready access is needed to services and markets. And it doesn't mean borrowing the vast sums that have loaded Africa with its huge debt burden. If vehicles are too expensive to be obtained, then simple things like footbridges or wheel barrels could ease the burden. One solution was as simple as providing a donkey.

The TanZam highway stretches from Tanzania all the way to Zambia. Just off the highway, near Morogoro, lies Kinyenze, a Masai village of about 130 people. During the 1970's the Tanzanian government encouraged the traditionally nomadic Masai to settle down into village life, which meant getting rid of most of their livestock — including their donkeys. When they first settled and started to use vehicles for transportation they soon learnt how expensive this could be. As a result, almost 20 years later, the donkey is making a comeback through a pilot development programme which is changing the lives of the villagers — giving them low-cost transport to surrounding areas.

Paos Koto is a small town 250 kilometres outside Dakar, Senegal. In the 1990s a single lane tarmac road was built linking Senegal with neighbouring Gambia and Guinea but the road didn't benefit the people of Paos Koto as much as it was supposed to. They couldn't afford to buy

a moped, let alone a truck but in August of 2000 the government's Rural Travel and Transport Program, together with Afribike, a South African organization, brought 150 bicycles to Paos Koto. Overnight the village was transformed.

Now, children can go to school in minutes instead of hours, healthcare is readily available and workers can transport their goods and services with relative ease. Bicycles make good people-carriers but in some parts of Africa people have a much heavier load to carry. Businesses are beginning to develop vehicles using pedal-power — like the bicycle-ambulance — but these prototypes are still too expensive for most people.

Good transport alternatives aren't much use without good roads or tracks. In many villages across rural Africa, tracks and roads that were once built have not been maintained and have reverted to bush. Guinea is so poor that the government doesn't have a policy of road building or maintenance in the countryside — so the rural villagers have to do it themselves. In Telimele the whole district pitches in three times a year to maintain the roads. Each village maintains only the section of road that runs through their village. The community working together keeps the roads open.

In Malawi an innovative approach to road building is being tested. This pilot project not only builds and maintains roads, but also provides skills and income to the local people. Each village puts forward two candidates, a man and a woman to go through a rigorous selection process. The successful candidates receive training with the project coordinators who will spend about a year and a half with the trainees, issuing them with contracts, before moving on. Once trained, the coordinators employ up to 100 local people to maintain the roads.

But not all roads have a positive impact. Luisa is an orange farmer from Tanga, Tanzania. Her life and her farm were transformed when a road was built into her village. Now she can travel outside the village. But it also means that other people, middlemen, can get in. These traders travel to buy up the oranges from the villagers. The farmers are experienced in the harsh realities of the free market but the traders are the ones with the vehicles — and they drive a hard bargain offering the farmers far less than the retail price.

It's clear that an integrated transport system — from the ground up — is needed and this means low-cost transport as well as — maintained roads.

Under pressure from creditors, African governments are experimenting with reforms. Most resources for infrastructure improvement are used up on primary and secondary roads and the landscape is pock-marked with grand scale projects that by and large have failed to raise the standard of living of the rural poor.

But the main international development assistance agencies are focusing on schemes to lift the poor out of poverty. And they are finding that listening to, and catering for, the modest wishes of the people who live in the countryside is the best way forward. Progress at the pace the people want it to be.

--- Adapted from: www.tve.org/earthreport

Questions 28 – 31

Do the following statements agree with the information given in Reading Passage 3?

In boxes 28 – 31 on your answer sheet write

TRUE	*if the statement is true*
FALSE	*if the statement is false*
NOT GIVEN	*if the information is not given in the passage.*

28 One reason why Africa is so poor is because of its lack of healthcare.

29 Guinea women walk to the local market, carrying 30 kilos of produce on their heads.

30 Masai villagers only3 use donkey to transport.

31 Local leaders were responsible for grand scale projects after independence.

Questions 32 – 35

Match the following towns with the appropriate transport

A Tanga

B Paos Koto

C Kindia

D Kinyenze

32 two-wheeled

33 four-wheeled

34 two-legged

35 four-legged

Questions 36 – 40

Complete the summary below.

Choose ***NO MORE THAN THREE WORDS*** *from the passage for each answer.*

In Senegal the government cooperated with **36** to bring in bicycles which make good **37** for the villagers of Paos Koto. Local communities in Guinea maintain their own **38** while in Malawi each village trains two **39** to employ local maintenance workers. In Tanga traders take advantage of their **40** to bring down orange prices.



INTERNATIONAL ENGLISH LANGUAGE TESTING SYSTEM

ACADEMIC READING TEST 5

TIME ALLOWED: 1 hour
NUMBER OF QUESTIONS: 40

INSTRUCTIONS
WRITE ALL YOUR ANSWERS ON THE ANSWER SHEET

The test is in 3 sections:

Reading Passage 1	Questions 1 – 13
Reading Passage 2	Questions 14 – 26
Reading Passage 3	Questions 27 – 40

Remember to answer all the questions. If you are having trouble with a question, skip it and return to it later.

READING PASSAGE 1

*You should spend about 20 minutes on **Questions 1 – 13** which are based on Reading Passage 1 below.*

Aswan High Dam



Just north of the border between Egypt and Sudan lies the Aswan High Dam, a huge rockfill dam which captures the world's longest river, the Nile, in one of the world's third largest reservoirs, Lake Nasser. The dam, known as Saad el Aali in Arabic, was completed in 1970 after 18 years of work.

Egypt has always depended on the water of the Nile River. The two main tributaries of the Nile River are the White Nile and the Blue Nile. Lake Victoria is the source of the White Nile and the Blue Nile begins in the Ethiopian Highlands. The two tributaries converge in Khartoum, the capital of Sudan where they form the Nile River. The Nile River has a total length of 4,160 miles (6,695 kilometres) from source to the Mediterranean Sea.

Before the building of a dam at Aswan, Egypt experienced annual floods from the Nile River which deposited 4 million tons of nutrient-rich sediment which enabled agricultural production.

This process began millions of years before Egyptian civilization began in the Nile valley and continued until the first dam at Aswan was built in 1889. This dam was insufficient to hold back the water of the Nile and was subsequently raised in 1912 and 1933. In 1946, the true danger was revealed when the water in the reservoir peaked near the top of the dam.

In 1952, the interim Revolutionary Council government of Egypt decided to build a High Dam at Aswan, about four miles upstream of the old dam. In 1954, Egypt requested loans from the World Bank to help pay for the cost of the dam (which eventually added up to US $1 billion). Initially, the United States agreed to loan Egypt money but then withdrew their offer for unknown reasons. Some speculate that it may have been due to Egyptian and Israeli conflict. The United Kingdom, France, and Israel had invaded Egypt in 1956, soon after Egypt nationalized the Suez Canal to help pay for the dam.

The former Soviet Union offered to help and Egypt accepted. The support was not unconditional, however. Along with the money, they also sent military advisers and other workers to help enhance Egyptian-Soviet ties and relations.

In order to build the dam both people and artifacts had to be moved. Over 90,000 Nubians had to be relocated. Those who had been living in Egypt were moved about 28 miles (45 km) away but the Sudanese Nubians were relocated 370 miles (600 km) from their homes. The government was also forced to develop one of the largest Abu Simel temples and dig for artifacts before the future lake would drown the land of the Nubians.

After years of construction (the material in the dam is the equivalent to 17 of the great pyramids at Giza), the resulting reservoir was named for the former president of Egypt, Gamal Abdel Nasser, who died in 1970. The lake holds 137 million acre-feet of water (169 billion cubic metres). About 17 percent of the lake is in Sudan and the two countries have an agreement for distribution of the water.

The dam benefits Egypt by controlling the annual floods on the Nile River and prevents the damage which used to occur along the floodplain. The Aswan High Dam provides about a half of Egypt's power supply and has improved navigation along the river by keeping the water flow consistent.

There are several problems associated with the dam as well. Seepage and evaporation accounts for a loss of about 12%–14% of the annual input into the reservoir. The sediments of the Nile River, as with all river and dam systems, has been filling the reservoir and thus decreasing its storage capacity. This has also resulted in problems downstream.

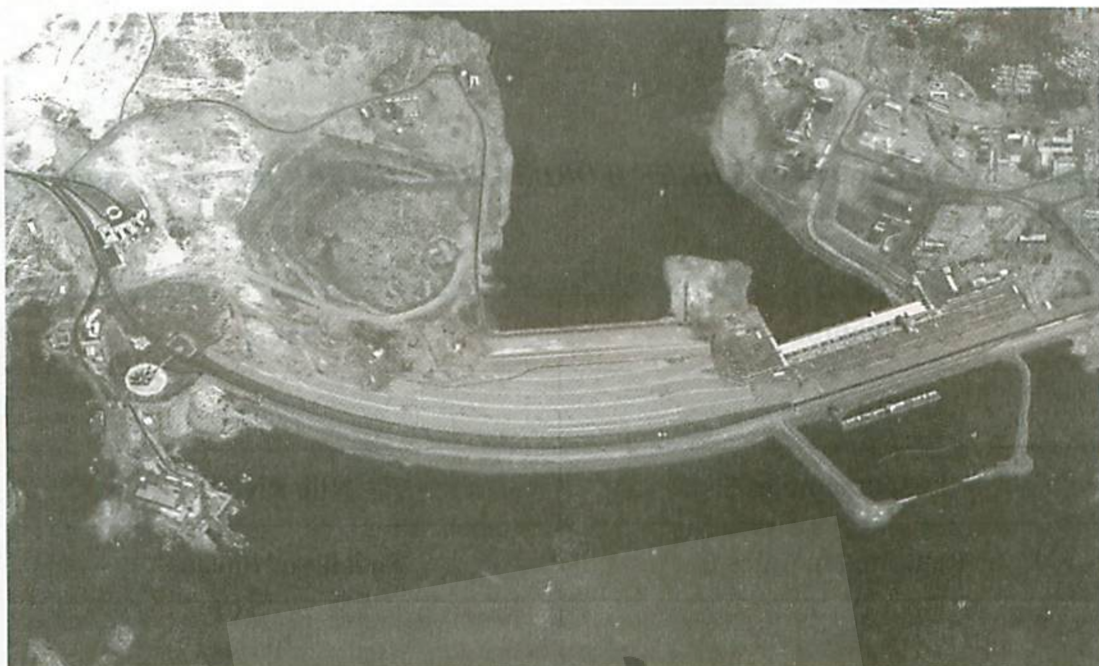
Farmers have been forced to use about a million tons of artificial fertilizer as a substitute for the nutrients which no longer fill the flood plain. Further downstream, the Nile delta is having problems due to the lack of sediment as well since there is no additional agglomeration of sediment to keep erosion of the delta at bay so it slowly shrinks. Even the shrimp catch in the Mediterranean Sea has decreased due to the change in water flow.

Poor drainage of the newly irrigated lands has led to saturation and increased salinity. Over one half of Egypt's farmland in now rated medium to poor soils.

The parasitic disease schistosomiasis has been associated with the stagnant water of the fields and the reservoir. Some studies indicate that the number of individuals affected has increased since the opening of the Aswan High Dam.

The Nile River and now the Aswan High Dam are Egypt's lifeline. About 95% of Egypt's population lives within twelve miles from the river. Were it not for the river and its sediment, the grand civilization of ancient Egypt probably would have never existed.

--- Adapted from: geography.about.com



NASA satellite photo

Questions 1 – 4

Do the following statements agree with the information given in Reading Passage 1?

In boxes 1 – 4 on your answer sheet write

YES	*if the statement agrees with the writer*
NO	*if the statement contradicts the writer*
NOT GIVEN	*if there is no information about this in the passage.*

1 The Nile River runs from Khartoum to the Mediterranean Sea.

2 The annual floods devastate agricultural production.

3 The Aswan Dam was rebuilt twice.

4 The former Soviet Union helped Egypt during the 1956 war.

Questions 5 – 8

Complete the table below.

Choose ***NO MORE THAN THREE WORDS OR A NUMBER*** *from the passage for each answer.*

Number	Name
28 miles	**7**
Length in miles **5**	Nile River
Relocated in miles **6**	Sudanese Nubians
17	**8**

Questions 9 – 13

Complete the summary below.

Choose ***NO MORE THAN THREE WORDS*** *from the passage for each answer.*

Benefits of the dam include less flooding and providing about 50% of ___**9**___. But there are many problems such as water leakage and ___**10**___. The Nile River has been filling up with ___**11**___ and so reducing its ___**12**___. The Nile delta is slowly disappearing because of the lack of ___**13**___ of sediments.

READING PASSAGE 2

*You should spend about 20 minutes on **Questions 14 – 26** which are based on Reading Passage 2 below.*

KOALA



Many people love the cute koala bear. This animal has been made into stuffed toys all over the world. But it is rare to see this creature alive and moving, because it's gradually becoming extinct.

The koala, like the kangaroo, is actually a marsupial. It contains a small pouch for its young. For this reason, the koala is not related to true bears. In appearance, it is a combination of a monkey and a kangaroo. Koalas are native to Australia, although they are now chiefly found in New South Wales and Queensland. The koala has been hunted since the middle of 20th century for fur and food. Today, anyone fund harming a koala is severely punished by law.

Koalas get their endearing appearance from a covering of gray fur and little tufts of white hair on the sides of their faces. Their eyes are small and black, set in their head. They have large ears and curved noses, but no tail. They use their arms and paws to climb through the trees. Koalas have interesting living habits. They are nocturnal, which means that they move around chiefly at night. Koalas do not stay on the ground. They move from tree to tree, carefully lowering and raising themselves by their paws. Koalas have a surprisingly long life span, which can range from 9 to 20 years, in rare cases.

The Koala is the only mammal, other than the Greater Glider and Ringtail Possum, which can survive on a diet of eucalytus leaves. Eucalyptus leaves are very fibrous and low in nutrition, and to most animals are extremely poisonous. To cope with such a diet, nature has equipped koalas with specialised adaptations. A very slow metabolic rate allows koalas to retain food within their digestive system for a relatively long period of time, maximising the amount of energy able to be extracted. At the same time, this slow metabolic rate minimises energy requirements. Koalas also sleep somewhere between 18 and 22 hours each day in order to conserve energy. Koalas eat only the leaves of the eucalyptus, which is another reason that they are now becoming extinct. The eucalyptus tree is disappearing from their natural habitats, fighting a battle against extinction all its own.

The koala's worst enemy, besides hunters, is fire. When a tree is inflamed, often they cannot run fast enough to save themselves. Baby koalas are in danger around certain kinds of lizards and ea-

gles, although they are protected today by natural habitats set up for them. It is interesting to note that many koalas die from being hit by cars, and some are even attacked by dogs! Their main form of defense is climbing, but they sometimes try to use their paws.

Koalas raise their young in a special way. A cub is usually about one inch at birth, where it lays in the mother's pouch. It will stay in the pouch for a little over half a year, during which time the mother carries and feeds the baby. At seven weeks, a tiny koala has a head larger than its body, of about 26 millimetres. By 22 weeks, the baby begins to turn in the pouch and kick, occasionally looking out into the natural world. By 24 weeks, the cub is fully covered with fur, and brain development is complete. Teeth are fully formed. At thirty weeks, the cubs climbs in and out of the pouch, clinging to the mother's belly in agreeable weather. From 37 weeks onward, the baby is independent of the mother, although it will rarely move more than a metre away from her in its first few weeks. Baby koalas are strongly protected by their mothres, and the familial bond is very strong in the koala world. One can tell if a baby is separated from its mother by tiny squeaks of panic.

Because koala bears are so cute and rare, they are often found in zoos, where their natural environment can be maintained. Although they only wake at night, sometimes it is possible to see them moving around at twilight and early morning. During the day, they mainly sleep in trees, but they are fun to watch, nonetheless.

Koalas are in grave danger because of three main threats. Their source of food is depleting, because the eucalyptus is susceptible to loggers, pharmacists and changing weather. The koala's body chemistry is also delicate, and it is extremely susceptible to diseases and bacteria not native to its environment. Finally, a certain strain of venereal disease is killing off many Australian koalas, causing deformity at birth and short life spans.

The largest force to contribute to koala extinction has been hunting. Koala furs are luxurious and warm, and at one point they were in demand all over the world. In 1924, at least 2.1 million skins were exported from Australia alone! Forest clearance has also depleted the numbers of the koala, and forest fires killed off thousands, especially in the years between 1950 and 1970. Now their greatest enemy is chlamydia, a disease that can also be found in humans. This disease is transmitted by sexual contact, and it has killed over three thousand koalas in the last year.

The war to save koalas has been effective. Their numbers have increased slightly, and actions have been taken to curb contact that will spread venereal deformity. In the next few years, their numbers may rise again, bringing them safely out of the danger zone.

--- Adapted from: www.savethekoala.com; fl.essortment.com

Questions 14 – 17

*Choose the appropriate letters **A – D** and write them in boxes 14 – 17 on your answer sheet.*

14 Animals that have a small pouch include ___________

A koalas and bears.

B kangaroos and bears.

C monkeys and kangaroos.

D kangaroos and koalas.

15 Koalas are often seen actively ___________

A climbing trees.

B on the ground.

C during the day.

D at night.

16 Eucalyptus leaves are ___________

A extremely poisonous to all mammals.

B only eaten by koalas.

C getting rarer and rarer.

D low in fibre.

17 Koalas can only stay awake for ___________

A 18 hours a day.

B between 18 and 22 hours a week.

C between 2 and 6 hours a week.

D between 2 and 6 hours a day.

Questions 18 – 22

Do the following statements agree with the information given in Reading Passage 2?

In boxes 18 – 22 on your answer sheet write

YES	*if the statement agrees with the writer*
NO	*if the statement contradicts the writer*
NOT GIVEN	*if there is no information about this in the passage.*

18 Koalas two main foes are fire and cars.

19 After a koala's brain is fully developed it emerges outside its pouch.

20 Koalas were hunted only because their furs are luxurious and warm.

21 To save koala people have to save the eucalyptus.

22 After nine months a baby koala does not need its mother.

Questions 23 – 26

Complete the sentence below (Questions 23 – 26) with word taken from Reading Passage 2.

*Use **NO MORE THAN THREE WORDS** for each answer.*

Write your answers in boxes 23 – 26 on your answer sheet.

23 It is amusing to watch koalas ____________.

24 People who cut down eucalyptus trees are a __________ to koalas.

25 Foreign ____________ in its environment are a great problem for koalas.

26 Hunting and forest fires kill off many koalas but now their number one threat is __________.

READING PASSAGE 3

*You should spend about 20 minutes on **Questions 27 – 40** which are based on Reading Passage 3 below.*

Questions 27 – 31

*Choose the most suitable headings for paragraphs **A – E** from the list of headings below.*

*Write appropriate numbers (**i – x**) in boxes 27 – 31 on your answer sheet.*

***NB** There are more headings than paragraphs, so you will not use them all.*

List of Headings

i	Information asymmetry of low-income shoppers
ii	Promotion usage models
iii	More spending on promotional random-weight items
iv	Various food-spending patterns
v	Higher prices but less spending
vi	Comprehending economizing of the poor
vii	An unresolved empirical question
viii	The correlation between the location and price
ix	The main economizing practices
x	Spending constraints the poor must consider

27 Paragraph A

28 Paragraph B

29 Paragraph C

30 Paragraph D

31 Paragraph E

Economizing of the Poor

A. Walking down the aisles of a supermarket, low-income shoppers must consider a number of factors including quantity, price, quality and nutritional differences when selecting food products. Food-purchase decisions by the poor often entail tradeoffs among taste, preference and quality factors — either real or perceived — to meet spending constraints. Within broad product categories such as cereal, cheese, meat and poultry, and fruits and vegetables, shoppers can choose among many substitutable products. Low-income shoppers can stretch their food dollars in a number of ways. They may shop in discount food stores; they may purchase and consume less food than higher-income shoppers; they may purchase low-priced (and possibly lower quality) food products; or they may rely on some combination of all three. A better understanding of how the poor economize in food spending addresses important policy questions raised by researchers, nutrition educators, and food-assistance program managers.

B. Whether the poor face significantly different food prices due to where they shop for food remains an unresolved empirical question. Extensive research over the years has tried to answer the question — Do the poor pay less for food? The Economic Research Service (ERS) in 1997 reviewed the results of studies comparing price differences in grocery stores across different income levels and combined these with current census data on the distribution of low-income households by urbanization type. The ERS study concluded that, in general, the poor face higher prices due to their greater representation in urban and rural areas (as opposed to suburban areas), where food prices tend to be higher.

C. Based on results from household surveys, ERS also found that despite facing higher prices, low-income shoppers spend less than higher-income shoppers for food purchased in food stores. Due to their level of aggregation and lack of in-store sales and promotion information, such surveys shed little light on the economizing practices of households. To learn more about how low-income shoppers spend less for food despite facing higher prices, we obtained food-store purchase data that incorporate per-capita quantity and expenditure-measure equivalents (household measures adjusted for household size) across income levels.

D. The resulting comparisons describe how individuals with different levels of income vary in their food-spending patterns. By using actual transaction data, detailed information about the product purchased (for example, price, product description, package size, and brand name) as well as the condition of purchase (promotion, coupon, or sale item) was obtained. From these, the average unit cost (per ounce, per pound) for each item was calculated. Low-income shoppers may use four primary economizing practices to reduce their food spending. First, they may purchase a greater proportion of discounted products. Second, they may purchase more private-label products (generic or store brand) versus brand products than higher-income shoppers buy. Third, they may take advantage of volume discounts by purchasing larger package sizes. Fourth, they may purchase a less-expensive food product within a product class. Although quality differences such as freshness, convenience and taste often contribute to prices differences, differences in nutritional quality also are evident.

E. The use of promotions is measured by comparing the percentage of expenditures and quantities of each product purchased on promotion (manufacturers' coupons, store coupons, store sales, and other promotions). For random-weight cheese, fruit, vegetables and meat in 1998, low-income households (less than $25,000 per year) spent a greater share of expenditures for products on promotion than other households. (This also is true for quantities purchased on promotion.) For poultry, however, middle-income households spent about the same percentage on promotion as low-income households (36% versus 35%, respectively). For both groups, spending for promotion items was at least five percentage points more than spending by the high-income group.

F. Among fixed-weight products, promotion-spending patterns differed. Low-income shoppers purchased the lowest share of total ready-to-eat (RTE) cereal on promotion. This result may be explained by other economizing practices in this product category — such as purchasing a larger percentage of private-label products, which are on promotion less often but have lower non-sale prices than the brand-name alternatives. Low-income households spent 11.5% of their RTE cereal expenditures on private-label cereals, while the higher-income households spent lower shares, with those shares decreasing with increasing income levels. A similar pattern is found for the quantities of private-label RTE cereal purchased.

G. Choice of package size also enables those in low-income households to economize by purchasing larger packages, which often have lower per-unit prices than smaller packages. However, data on expenditure shares for RTE cereal and packaged cheese show that low-income households' purchases of large packages of RTE cereal were less than such purchases by other households in 1998. In 1998, households earning $50,000 or more spent 23.1% of cereal purchases on large packages, compared with 15.8% by the low-income group. A similar pattern was found for fixed-weight cheese products.

H. In fact, low-income households had the lowest proportion of large-package purchase of all income groups. This behavior has three possible explanations: low-income shoppers do not have access to stores that sell large packages; they cannot afford to "stock up" on staple products, and they perceive that the cost of storing large packages is higher than the savings from the volume discount. A combination of these constraints likely accounts for much of the observed difference in package size quantifies purchased and expenditures on those packages by the different income groups.

I. Low-income shoppers may also be economizing by purchasing a less costly combination of fruit and vegetable product types. On average, low-income households paid 11.5% less per pound for vegetables than high-income households, and 9.6% less per pound for fruit. This price measurement is a function of the quality and expenditures that each household type devotes to fruits and vegetables. Overall, low-income households purchased 3.3% less fruits and vegetables (by weight) per person than high-income households, but they paid 13% less. This implies that these households are choosing less expensive fruits and vegetables.

— *Adapted from: Dairy Foods, Oct, 2003*

Questions 32 – 36

Do the following statements agree with the information given in Reading Passage 2?

In boxes 32 – 36 on your answer sheet write

YES	*if the statement agrees with the writer*
NO	*if the statement contradicts the writer*
NOT GIVEN	*if there is no information about this in the passage.*

32 The surveys of ERS help low-income households develop economizing practices.

33 The nutritional quality of food product varies in accordance with price differences.

34 Promotions are usually used to attract low-income shoppers.

35 Brand-name products are promoted more frequently.

36 Middle-income households purchased less private-label RTE cereal than low-income households.

Questions 37 – 40

Complete the summary below.

Choose your answers from the list below the summary.

***NB** There are more words than spaces, so you will not use them all.*

Large-package purchase can benefit low-income households in theory, but it seldom works in reality. There are three possible explanations for this discrepancy: **37**_____, **38**_____, and **39**_____ constraints. Also, low-income shoppers may gain **40**_____ on fruit and vegetable products.

List of Words

measurement budget privilege

staple volume savings

quality transportation type storage

INTERNATIONAL ENGLISH LANGUAGE TESTING SYSTEM

ACADEMIC READING TEST 6

TIME ALLOWED: 1 hour
NUMBER OF QUESTIONS: 40

INSTRUCTIONS
WRITE ALL YOUR ANSWERS ON THE ANSWER SHEET

The test is in 3 sections:

Reading Passage 1	Questions 1 – 13
Reading Passage 2	Questions 14 – 26
Reading Passage 3	Questions 27 – 40

Remember to answer all the questions. If you are having trouble with a question, skip it and return to it later.

READING PASSAGE 1

*You should spend about 20 minutes on **Questions 1 – 13** which are based on Reading Passage 1 below.*

History of Timepiece

Little is known about the details of timekeeping in prehistoric eras, however, records and artifacts that are discovered, show that in every culture, people were preoccupied with measuring and recording the passage of time. Ice-age hunters in Europe over 20,000 years ago scratched lines and gouged holes in sticks and bones, possibly counting the days between phases of the moon. Five thousand years ago, Sumerians in the Tigris-Euphrates valley in today's Iraq had a calendar that divided the year into 30-day months, divided the day into 12 periods (each corresponding to 2 of our hours), and divided these periods into 30 parts.

After the Sumerian culture was lost without passing on its knowledge, the Egyptians were the next to formally divide their day into parts something like our hours. Obelisks (slender, tapering, four-sided monuments) were built as early as 3500 B.C. Their moving shadows formed a kind of sundial, enabling citizens to partition the day into two parts by indicating noon. They also showed the year's longest and shortest days when the shadow at noon was the shortest or longest of the year. Later, markers added around the base of the monument would indicate further time subdivisions.

Another Egyptian shadow clock, possibly the first portable timepiece, came into use around 1500 B.C. to measure the passage of "hours". This device divided a sunlit day into 10 parts plus two "twilight hours" in the morning and evening. When the long stem with 5 variably spaced marks was oriented east and west in the morning, an elevated crossbar on the east end cast a moving shadow over the marks. At noon, the device was turned in the opposite direction to measure the afternoon "hours".

In the quest for more year-round accuracy, sundials evolved from flat horizontal or vertical plates to more elaborate forms. One version was the hemispherical dial, a bowl-shaped depression cut into a block of stone or made of bronze, carrying a central vertical gnomon (pointer) and scribed with sets of hour lines for different seasons. By 30 B.C., Vitruvius could describe 13 different sundial styles in use in Greece, Asia Minor, and Italy.

Water clocks were among the earliest timekeepers that didn't depend on the observation of celestial bodies. One of the oldest was found in the tomb of Pharaoh Amenhotep I, buried around 1500 B.C. these were stone vessels with sloping sides that allowed water to drip at a nearly constant rate from a small hole near the bottom. Another version consisted of a metal bowl with a hole in the bottom; when placed in a container of water the bowl would fill and sink in a certain time. These were still in use in North Africa this century.

Since the rate of flow of water is very difficult to control accurately, a clock based on that flow can never achieve excellent accuracy. People were naturally led to other approaches. In Europe during most of the Middle Ages (roughly 500 to 1500 A.D.), technological advancement was at a virtual standstill. Sundial styles evolved, but not far from ancient principles. Then, in the first half of the 14th century, large mechanical clocks began to appear in the towers of several large Italian cities. There is no evidence or record of the working models preceding these public clocks, which were weight-driven and regulated by a verge-and-foliot escapement. Variations of the verge-and-foliot mechanism reigned for more than 300 years, but all had the same basic problem: the period of oscillation of the escapement depended heavily on the amount of driving force and the amount of friction in the drive. Like water flow, the rate was difficult to regulate.

Another advance was the invention of spring-powered clocks between 1500 and 1510 by Peter Henlein of Nuremberg. Replacing the heavy drive weights permitted smaller (and portable) clocks and watches. Although they slowed down as the mainspring unwound, they were popular among wealthy individuals due to their small size and the fact that they could be put on a shelf or table instead of hanging on the wall or being housed in tall cases. Although they only had an hour hand, the advances in design were precursors to truly accurate timekeeping.

In 1656, Christian Huygens, a Dutch scientist, made the first pendulum clock, regulated by a mechanism with a "natural" period of oscillation. Huygens' pendulum clock had an error of less than one minute a day, the first time such accuracy had been achieved. His later refinements reduced his clock's errors to less than 10 seconds a day. Refinements led in 1889 to Siegmund Riefler's clock with a nearly free pendulum, which had an accuracy of a hundredth of a second a day. A true free-pendulum was introduced by R. J. Rudd about 1898, stimulating development of several free-pendulum clocks. One of the most famous, the Shortt clock, was demonstrated in 1921. The Shortt clock replaced Riefler's clock as a supreme timekeeper. This clock consists of two pendulums, one a slave and the other a master. The slave pendulum gives the master pendulum the gentle pushes needed to maintain its motion, and drives the clock's hands. This allows the master pendulum to remain free from tasks that would disturb its regularity.

The Shortt clock was replaced as the standard by quartz crystal clocks in the 1930s and 1940s. Quartz clock operation is based on a property of quartz crystals. If you apply an electric field to the crystal, it changes shape, and if you squeeze or bend it, it generates an electric field. When put in a suitable electronic circuit, the crystal can vibrate and generate an electric signal that can be used to operate an electronic clock display. Quartz crystal clocks were better because they had no gears or escapements to disturb their regular frequency. Such quartz clocks continue to dominate the market in numbers because their performance is excellent and they are inexpensive. But the timekeeping performance of quartz clocks has been substantially surpassed by atomic clocks.

--- Adapted from : physics.nist.gov; www.infoplease.com

Questions 1 – 8

Do the following statements agree with the information given in Reading Passage 1?

In boxes 1 – 8 on your answer sheet write

TRUE	*if the statement is true*
FALSE	*if the statement is false*
NOT GIVEN	*if the information is not given in the passage.*

1 The earliest measurements of time were based on the Sumerian lunar calendar.

2 The small measurement of time that the ancestors of present-day Iraq used was equivalent to four minutes.

3 The shortest shadow at midday meant it was the shortest day of the year according to the Egyptians' Obelisks.

4 Obelisks were timepieces that could be carried around easily.

5 Egyptian water clocks could be used indoors and outdoors.

6 Spring-powered clocks were more accurate than weight-driven clocks but still had an error of more than one minute a day.

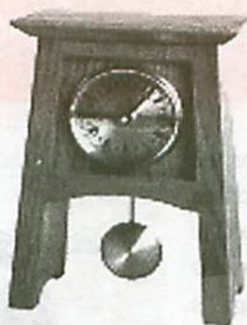
7 Rudd made the Shortt clock to replace Riefler's clock.

8 Quartz crystal clocks have no moving parts.

Questions 9 – 13

Complete the diagram below.

Choose ***NO MORE THAN THREE WORDS*** *from the passage for each answer.*

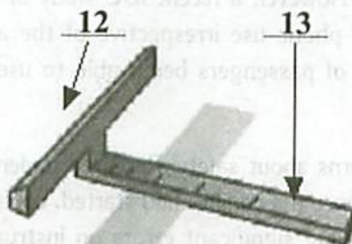


Name: **9** ______



Name: **10** ______

12 **13**



Name: **11** ______

READING PASSAGE 2

*You should spend about 20 minutes on **Questions 14 – 26** which are based on Reading Passage 2 below.*

Mobile in the Sky

In-flight use of mobile phones is coming soon — if public and regulatory concerns can be overcome.



One of the bonuses of travelling by air — at least for the moment — is communications "downtime". As soon as passengers are on board, the cacophony of mobile phone calls stops, silenced by airline industry safety concerns and regulatory issues. But that looks certain to change as the in-flight mobile phone lobby gains momentum. They are confident that any technological issues have been overcome; the only task now is convincing the public and regulatory bodies that in-flight calls are desirable and safe.

The consensus from interested parties, such as airlines and mobile providers, is that the technology needed to provide mile-high mobile telephony does not differ substantially from that needed to provide it on the ground. "We don't believe the technology's a problem," says Dave Tharp, on-board media development manager for Virgin Atlantic. "It's the social and political issues that have to be negotiated. As many people want it as don't, and there are an awful lot in the middle," he says.

One idea gaining popularity is to designate certain parts of the plane as "communications zones", where the disruption and annoyance caused by passengers bellowing to be heard above the background noise from jet engines is minimised. However, a recent IDC study of 50,000 American passengers found only 11% were in favour of phone use irrespective of the area of the plane. Conversely, 64% of the respondents approved of passengers being able to use their phones for quieter services such as text and e-mail.

Clearly, though, some authorities do have concerns about safety. Research undertaken in 2003 by the Civil Aviation Authority found mobile usage, once the engines had started, could "adversely affect navigation and communication functions, producing significant errors on instrument displays and background noise on audio outputs". It cited pilots' observations on the impact of on-board mobile telephone use that pointed to interrupted communications due to noise in the crew's headphones, false notification of unsafe conditions and distractions to the crew from their normal duties due to the fact they were more likely to invoke emergency drills. In the US, the Association of Flight Attendants opposes the end of the ban on mobiles for the same reasons.

Recently, safety concerns of a different kind have been voiced. Representatives from the US Department of Justice and the Department of Homeland Security told a House of Representatives subcommittee that allowing mobile use on planes could facilitate terrorism by allowing bombs to be

set off remotely. Although anyone determined enough to set off a bomb would presumably be unlikely to turn their phone off simply because the cabin crew asked them to, it is an illustration of just how many facets there are to this issue.

Meanwhile the potential for providing mobile access is building steadily. Global satellite network owner Inmarsat has recently launched next-generation I-4 satellites to expand bandwidth and coverage across the Indian Ocean. It thinks there is massive potential in providing Internet and mobile phone services to passengers on commercial airlines. Inmarsat's avionics are already installed on some 70% of long-haul wide-bodied aircraft, yet on most only a small amount of the available capacity is used. Clearly Inmarsat believes if there is a way of allowing passengers to make calls from their own phones, this excess capacity could be constructively utilised.

The plane manufacturers too are stepping up their drive towards mobile services. Boeing, with its Connexion service, already provides WiFi Internet access to on-board laptop users on around 70 planes operated by Lufthansa, Singapore Airlines and a few others. Its rival, Airbus, is part of the OnAir consortium, supported by SITA, the common services provider to the air travel industry, and Tenzing, which provides Internet and email technology to airlines. SITA estimates that by 2009 the market for in-flight mobile services will be worth $1.6 billion. Airbus aims to enable mobile calls on its planes by 2006.

Although technology does not appear to be much of a barrier (a "pico cell" can easily be installed on an aircraft to act as a local ground station) regulatory bodies still have to be convinced. As Virgin Atlantic's Tharp explains: "Standards are going to have to be laid down — the regulatory authorities like the BAA and FAA [British Airports Authority and the Federal Aviation Administration in the US] will decide on safety matters. There are also very powerful telecoms players, like Vodafone and AT&T, who have no intention in letting their brand be affected by safety concerns on board planes. As airlines we have to take both of these into account."

OnAir favours what it calls the "horizontal approach" to certification, with laws covering the use of mobiles set by the country where the plane is registered. "As well as being consistent with the aviation law position generally, the advantage of this approach is that one only needs a licence from one country for each airline's aircraft," says Andrew Charlton, OnAir's head of regulatory affairs. Regulators could then work together to ensure the planes do not interfere with terrestrial operators.

Alternatively, airlines could obtain GSM spectrum from all the countries they fly over. This means that they could not provide a service before all relevant countries had fully agreed and cross-national inconsistencies ironed out.

Despite the alternatives, plenty of questions still remain about adoption. Passengers have had back-of-the-seat "Airfone" services available for several years, but have shied away from using these because of the cost ($100 plus per hour) and consideration for other passengers. Early reports on calls made over on-board Internet connections using voice-over-IP links such as Skype from laptops have suggested these are highly intrusive for other passengers. But the turning point will come when mobile phone usage is authorised — and that seems to be only a matter of time.

--- *Adapted from: www.infoconomy.com*

Questions 14 – 18

Complete the summary below.

Choose your answers from the list below the summary.

***NB** There are more words than spaces, so you will not use them all.*

Changes are in the air if the __14__ lobby has anything to do with it. Regarding to in flight calls, Virgin Atlantic says there is __15__ although there is a __16__ as the study showed only 11% passengers were __17__. The CAA discovered that crew members could face extra __18__ because of mobile phone usage in flight.

List of Words

awful lot　no technology problem
social and political　passenger problem
in-flight mobile　phone observations
irrespective　emergency drills　advocates
instrument　displays　the plane manufacturers

Questions 19 – 22

Choose the appropriate letters A – D and write them in boxes 19 – 22 on your answer sheet.

19 Inmarsat believes that its avionics could be more widely used if

A it installed them on the remaining 30% of long-haul aircraft.
B it increased the available capacity.
C it launched more next generation I-4 satellites.
D passengers could make in-flight calls.

20 The OnAir group already has

A WiFi internet access on board.

B mobile phone usage on all its planes.
C a competitor in Boeing.
D a rival in Airbus.

21 The final say in whether mobile phone usage will be allowed in flight will be decided by
A the regulatory authorities.
B the telecom companies.
C the airlines.
D the passaengers.

22 Internet voice usage is considered to be
A too expensive.
B too interruptive.
C easily available.
D not authorized yet.

Questions 23 – 26

Match the following companies or organizations as applying to

A for mobile phone use on planes
B against mobile phone use on planes

23 Vodafone

24 AFA

25 Airbus

26 CAA

READING PASSAGE 3

*You should spend about 20 minutes on **Questions 27 – 40** which are based on Reading Passage 3 below.*

Questions 27 – 30

*Reading Passage 3 has 8 paragraphs **A – H**.*

*From the list of headings below choose the most suitable headings for paragraphs **C**, **F**, **G** and **H**.*

*Write the appropriate numbers **(i – viii)**.*

***NB** There are more headings than paragraphs so you will not use all of them.*

List of Headings

i	The critical time
ii	Difference between childhood and adulthood
iii	Thinking things through
iv	Children are simply the best
v	Specialist area
vi	Early learning
vii	Intuitive use of the brain
viii	A larger brain capacity

27 Paragraph **C**

28 Paragraph **F**

29 Paragraph **G**

30 Paragraph **H**

Linguistic Ability of Children

A. Scientists may finally have an explanation for why children reign supreme when it comes to learning new languages. Using MRI and animation technology to study the brains of children, researchers like Dr. Paul Thompson of UCLA have discovered that children are processing language information in a different region of the brain than adults.

B. There are different areas in the brain controlling different functions in our lives. When we brush our teeth, sign our names or drive a car, we don't consciously think: "move the right hand up and down like this", "capitalize this letter", or "turn the wheel 30 degrees to the left". These are examples of automatic brain function. When children acquire language, this same part of the brain, called the "deep motor area", is what they use, so the language is like second nature.

C. But when adults learn a second or third language, their brains operates differently. The window of opportunity to imprint information and skills in the deep motor region of the brain is widest during early childhood and nearly shut by the time we reach about 18. Therefore, adults have to store information elsewhere, in a more active brain region. As a consequence, adults usually think sentences through in a native tongue and then translate them word-by-word, instead of thinking automatically in another language like a child would. Even for people with extensive training in a second language as an adult, who feel their speech is automatic, on a neurological level the brain is still operating differently from a child's.

D. Research into the neurology of language acquisition is proving useful because understanding the "geographic" differences of language learning in children versus adults may influence educators and their decisions about foreign language instruction. As an example, Thompson says simply teaching young children the sounds and accents of other languages at an earlier age may be valuable, even if they are not getting full instruction in the language. Learning those sounds later in life from a neurological perspective can be more difficult.

E. There is no proof of any physiological change that fundamentally alters language learning between childhood and adulthood. Non-physiological explanations are available for every observation made thus far, and they are just as plausible as the physiological explanations. The notion that children are physiologically different from adults with respect to language learning is accepted linguistic dogma, not proven fact. The dogma is most readily accepted by linguists who can't learn other languages, and is considered the most questionable by people who have learned languages with native proficiency in adulthood.

F. It is wrong to say that changes happens after a certain age, because it happens all the time. At early age, brains develop rapidly and important for a child to receive enough input to form and develop the language center in his brain. It is believed that the critical age is about 7, and if a child was not taught any language before, then he/she will have seriously problem with acquiring even his/her first language. Some studies also suggest lateralization of language processing increase rapidly up to age 5, then continue more slowly up to 25, after that age it gradually decreases. While language is clearly localized in the brains of adults and older children, it is considerably less so in children. Thus, young children use a much larger area of the brain than adults to process language: Electrical measurements from young toddlers' brains show that they use a larger brain area to process words than older toddlers and the more precocious a toddler's language skill, the more focal his or her brain activation. Even older children (8–13 years) show a greater area of brain activation than adults during a word generation task.

G. Many researchers believe that the familiar language areas of the adult brain are not present in children; they emerge gradually during childhood. At the same time, the left hemisphere does show some specializations by birth (and before) which favor the development of language there. A child's experience with language (both hearing and producing it) converts the initial bias of the left hemisphere into a full-fledged language module. However, when something interferes with the development of this left hemisphere specialization in young children, their brains are plastic enough to reshape how the brain processes language. Children who suffer injuries to the left hemisphere are able to develop normal language skills using the right hemisphere. In extreme cases, some children have their left hemispheres surgically removed (the only treatment for some cases of epilepsy) and their language skills end up virtually normal. However, children with early damage to the left hemisphere are somewhat language delayed. They eventually catch up, but this delay indicates that specialized areas of the left hemisphere do make language-learning easier. Children without this circuitry are forced to solve the language problem in other ways.

H. Language-learning is thus a matter of cerebral specialization. Infants and young children "try out" large areas of the brain for language processing, but eventually select circuits in the left brain area, as these become faster and more highly-tuned to a child's native language. Most scientists believe there is a "critical period" for language acquisition — a limited phase in which a child must be exposed to normal language or his/her capacity to understand and produce will be permanently limited. The brain is thought to be maximally receptive to language experience during the first few years of life, and then gradually declines in sensitivity until the end of puberty.

--- Adapted from: www.childreninc.org

Questions 31 – 35

Using ***NO MORE THAN THREE WORDS*** *from the passage, answer the following questions.*

31 Which part of the brain controls the movement of the hands?

32 What is almost closed when we become adults?

33 What kind of teachers does the latest research affect?

34 What have non-physiological and physiological explanations have in common?

35 What is used to show that young children use a much larger area of the brain than older children or adults?

Questions 36 – 40

Complete the summary below.

Choose ***NO MORE THAN THREE WORDS*** *from the passage for each answer.*

It is the brain's **36** ______ which is more suitable for language development although if this is **37** ______ children's brains are **38** ______ enough to commence standard language ability in the right side. Although young children use **39** ______ of the brain for language processing early in life, they later utilize the **40** ______ in the left brain area as this enhances language learning.

INTERNATIONAL ENGLISH LANGUAGE TESTING SYSTEM

ACADEMIC READING
TEST 7

TIME ALLOWED: 1 hour
NUMBER OF QUESTIONS: 40

INSTRUCTIONS

WRITE ALL YOUR ANSWERS ON THE ANSWER SHEET

The test is in 3 sections:

Reading Passage 1	Questions 1 – 13
Reading Passage 2	Questions 14 – 26
Reading Passage 3	Questions 27 – 40

Remember to answer all the questions. If you are having trouble with a question, skip it and return to it later.

READING PASSAGE 1

*You should spend about 20 minutes on **Questions 1 – 13** which are based on Reading Passage 1 below.*

History of Aviation



The discovery of the kite that could fly in the air by the Chinese started humans thinking about flying. Kites were used by the Chinese in religious ceremonies. They built many colorful kites for fun. More sophisticated kites were used to test weather conditions. Kites have been important to the invention of flight as they were the forerunner to balloons and gliders.

For centuries man has dreamed to soar with the birds. Famous inventors such as Leonardo da Vinci, John Stringfellow, and Lawrence Hargrave have conjured up ideas of how to get some of the strangest machines to fly long before the Wright brothers' famous first flight at Kitty Hawk.

The first form of an aircraft was the kite, designed in the 5th century BC. Later on in the 13th century, Roger Bacon, an English monk, performed studies which later gave him the idea that air could support a craft just like water supports boats. In the 16th century, Leonardo da Vinci studied birds flight, and later produced the airscrew and the parachute. The airscrew, leading to the propeller later on, and the parachute were tremendously important contributions to aviation. He envisioned three different types of heavier-than-air craft: the helicopter, glider, and ornithopter (a machine with mechanical wings which flap to mimic a bird). Although Leonardo's designs were impractical, seeing they required human muscular power which was insufficient to generate flight with the aircraft he envisioned, he was vital to aviation because he was the first to make scientific suggestions.

Some of the more credible developments in actual flight and stability occurred in the 19th century. British Sir George Cayley designed a combined helicopter and horizontally propelled aircraft, and British Francis Herbert Wenham used wind tunnels in his studies and predicted the application of multiple wings placed above each other. Another famous inventor was John Stringfellow, who designed a steam engine powered aircraft which was launched from a wire. This model demonstrated lift but failed to actually climb. Lawrence Hargrave, a British-born Australian inventor, created a rigid-wing aircraft with flapping blades operated by a compressed-air motor, it flew 312 ft (95m) in 1891. A famous glider developer in the 19th century was Jean Marie Le Bris, a Frenchman who tested a glider with movable wings.

Some of the most important full-scale model flight attempts were made by Samuel Langley, who created the first heavier-than-air, gasoline-powered engine which actually flew. The 'aerodrome', which he called it, was powered by a 53 horsepower 5-cylinder radial engine and later crashed into the Potomac river on December 1903 — days before the Wright's historic flight.

Throughout the last century, major developments would give inventors a sound basis in experimental aerodynamics, although stability and control required for sustained flight had not been acquired. Most importantly, inventors noticed that successful powered flight required light gasoline engines instead of the cumbersome steam engines previously used.

From 1903 to today, it's remarkable how far aviation has come. On December 17, 1903, at 10:35 a.m., the Wright brothers' (Orville at the controls) made the first heavier-than-air, machine powered flight which lasted 12 seconds and spanned 120 feet.

Their first flight was 102 feet short of the wingspan of the C-5 Galaxy today, yet they did what every man and woman has dreamed for centuries. . . they flew. Yet, not all flights were victorious, on September 17, their aircraft crashed, injuring Orville and his passenger (Lieutenant Thomas E. Selfridge). Selfridge later died of a concussion and was the first person to be killed in a powered airplane. Yet the show went on and Wilbur went to France in August 1908, and on December 31, 1908, he completed a 2 hour 20 minute flight which demonstrated full control over his Flyer. The Flyer was purchased on August 2 and became the first successful military airplane. It remained in service for around two years and was retired to the Smithsonian Institution where it rests today.

Before World War I, airplane design greatly improved. Pusher biplanes (two-winged airplanes with the engine and propeller behind the wing) were succeeded by tractor biplanes (two-winged airplanes with the engine and propeller in front of the wing). Monoplane designs were rare, and when World War I began, huge biplane bombers with two to four engines were developed. Airmail was also started, although it only lasted a week. The first airmail officially approved by the U.S. Post Office Department began on September 23, 1911, and the pilot would carry the mail on his legs and tossed the bag overboard when he reached his destination. Also in 1911, the first transcontinental flight across the U.S. was completed by Calbraith P. Rodgers. His flight from New York to California took 3 days, 10 hours, and 14 minutes, and was by a Wright aircraft.

During World War II, aircraft became a decisive factor in warfare. The largest operator of all international airlines in operation at this time was Pan American Airways. Pan American served 46 countries and colonies linking all continents and nearly all oceans. Small aircraft production increased significantly. Before World War II only about 193,000 people were employed in the aviation industry, and during 1941 the number increased to 450,000; also, around 3,375,000 passengers were transported by 18 U.S. airlines at this time, around 1 million more than in 1940. Airmail and express cargo would also increase by around 30 percent. But by the end of World War II, a new frontier of flight would take shape, jet and rocket propelled aircraft.

After World War II and by 1947 all the basic technology needed for aviation had been developed; jet propulsion, aerodynamics, radar, etc. Civilian aircraft orders drastically increased from 6,844 in 1941 to 40,000 by the end of 1945. One of the minor military contractors was the Boeing Company who later became the largest aircraft manufacturer in the world. With all the new technologies developed by this time, airliners were larger, faster, and featured pressurized cabins. New aerodynamic designs, metals, and power plants would result in high-speed turbojet airplanes. These planes would later be able to fly supersonically and make transoceanic flights regularly.

---Adapted from: www.globalaircraft.org

Questions 1 – 4

*Using **NO MORE THAN THREE WORDS** from the passage, answer the following questions.*

1 What followed the Chinese discovery of the kite?

2 Why were da Vinci's ideas not feasible?

3 Which kind of aircraft flew 95 metres in 1891?

4 What was the name of the first plane that actually flew?

Questions 5 – 9

Match the following people with their discoveries

A Jean Marie Le Bris

B John Stringfellow

C Leonardo da Vinci

D Lawrence Hargrave

E Francis Herbert Wenham

F The Wright brothers

5 flapping blades

6 movable wings

7 multiple wings

8 flapping wings

9 use of a wire

Questions 10 – 13

Do the following statements agree with the information given in Reading Passage 1?

In boxes 10 - 13 on your answer sheet write

YES	*if the statement agrees with the writer*
NO	*if the statement contradicts the writer*
NOT GIVEN	*if there is no information about this in the passage.*

10 The name of Orville's brother is not given in the passage.

11 The wingspan of a C-5 Galaxy is 222 feet.

12 The first plane used by the military was a biplane.

13 During World War II turbojets were in use.

READING PASSAGE 2

You should spend about 20 minutes on Questions 14 – 26 which are based on Reading Passage 2 below.

Ant Intelligence

A. The behaviour of ants has long fascinated scientists. And why not? These insects have the strength to carry food up to seven times their own body weight, and set up amazingly complex colonies, with social 'castes' in which every member has a role. In fact, ants are not only fascinating just to entomologists looking at them under the microscope. In recent years, computer scientists have been paying great attention to the way in which a colony of ants can solve complex problems; in particular, how it finds the shortest route to a food source.

B. Each insect in a colony seemed to have its own agenda, and yet the group as a whole appeared to be highly organized. This organization was not achieved under supervision, but through interaction among individuals. This was most apparent in the way in which ants travel to and from a food source.

C. Ants form and maintain a line to their food source by laying a trail of pheromone, i.e. a chemical to which other members of the same species are very sensitive. They deposit a certain amount of pheromone while walking, and each ant prefers to follow a direction rich in pheromone. This enables the ant colony to quickly find the shortest route. The first ants to return should normally be those on the shortest route, so this will be the first to be doubly marked by pheromone (once in each direction). Thus other ants will be more attracted to this route than to longer ones not yet doubly marked, which means it will become even more strongly marked with pheromone.

D. Soon, therefore, nearly all the ants will choose this route. But what if the ants happened to return from a longer route first, marking it most strongly? Computer simulations show that this problem is solved if the pheromone decays or evaporates slowly. This makes it harder to maintain stable pheromone trails on longer routes. Studying this uncanny skill has enabled researchers to create software agents capable of solving complex IT problems, such as rerouting traffic in a busy communications network. The Saharan Desert Ant has an equally amazing way of finding its way back to its nest, involving complex mathematics called path integration and horizontal projection.

E. There are about 8,000 species of ants in the insect family Formicidae (order Hymenoptera). They live all over the world, although they generally prefer warmer climates, and range in size from 2 mm to 25 mm (0.08–1 inch). Ants live eight to ten weeks, passing through a four-stage life cycle—egg, larva, pupa and adult. The workers are sterile females and do the labour of the nest; the larger ones (the soldiers) defend the colony. At certain times of the year, many species produce winged males and queens. These fly into the air where they mate (with the male dying soon afterwards). The fertilized queen then establishes a new nest, and spends the rest of her life laying eggs.

F. The social behaviour of ants is among the most complex in the insect world. They communicate by touch and smell, constantly touching each other to pass on their nest odour. There are also

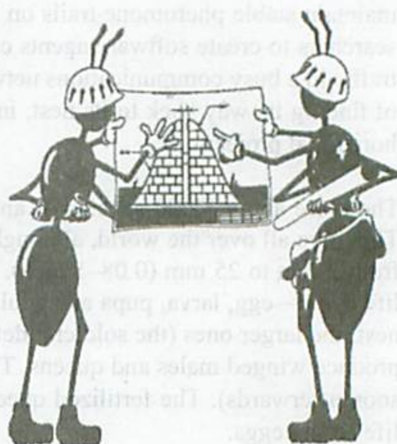
some fairly aggressive tendencies exhibited by many ants. For example, ants have the ability to take over the nest of other ant species, via a 'parasitic queen' and 'enslave' the inhabitants. The queen will attack and kill the queen of the other species, and then cover herself with the odour of the other queen so she will be accepted by the colony residents. This is done by touching parts of her body to all the open wounds of the dead queen. She then lays her eggs, which are cared for by the colony ants. As the parasitic eggs hatch and the new queen's ants become more abundant, they capture the larvae of the original colony and use them as slaves when they hatch. These 'hostages' grow up and must take care of the upkeep of the nest and its invaders.

G. All ants have amazing design features. They have two sets of jaws—the outer pair is used for carrying objects and for digging, while the inner pair is used for chewing. Some ants can lift food items (leaves, grains or other insects) that are up to seven times as heavy as themselves. All ants play an important role in the economy of a fallen world. They control the population numbers of many other species. Ants can eat animals (vertebrates as well as other invertebrates like themselves), plants, and even the seeds of many plants, as well as eating and thus recycling dead organic material. Most ant species live in soil, but some, like carpenter ants, live in wood.

H. Ants are proficient hunters and are relentless in their search for a nest, food, or even slaves. They are able to mount a coordinated raid on an enemy colony, and are quick to defend their nests against intruders. Some ants have what is described as mutually beneficial, or 'symbiotic', relationships with other insects, and even, in some cases, with fungi. One of the best examples of this mutualism occurs with aphids ('plant lice'). These sap-sucking insects produce a sweet, sticky substance known as honeydew, to which ants are highly attracted as a food source.

I. The way this relationship works can be seen in the Cornfield Ant and the Corn Root and Strawberry Aphids. Apparently to ensure they remain well supplied in honeydew, Cornfield Ants will foster these aphids, ward off any of their enemies and protect their eggs in winter. In the case of the Corn Root Aphid, Cornfield Ants will collect aphid eggs in the autumn, protect them in their nests over winter, then in spring, carry the young to smartweed and grass roots, where they obtain nourishment. These young nymphs grow to become wingless females, called stem mothers that can produce live young without mating. These stem mothers raise two or three generations on the host plant, after which the ants return to carry the aphids to young corn roots where the aphids breed another 10–20 generations.

J. Under the care of the ants, the aphids thrive. The ants gain the aphid honeydew 'excrement'; the aphids gain protectors who also act as 'chauffeurs'. However, the ants, not the aphids, appear to control the relationship. This is demonstrated occasionally when a winged female aphid is hatched, and then tries to fly off to a different host plant, away from the ants. It is then that the ants show their authority by seizing the female and carrying her back into their nest.



K. The ant's highly complex social structure, life cycle, strength, navigational abilities and the intelligence to 'farm' aphids, are all said to be the result of evolution. Such a claim defies logic and plain common sense.

---*Adapted from: www.answersingenesis.org*

Questions 14 – 18

Reading Passage 2 has 11 paragraphs A – K.

Which paragraphs state the following information?

Write the appropriate letters A – K in boxes 14 – 18 on your answer sheet.

14 The ants dominate in the mutualism relationship.

15 The strategy used by the ants can be applied to human society.

16 Ants contribute to ecological balance.

17 How a given ant species invades another one.

18 Ants are both independent and collective.

Questions 19 – 23

Do the following statements agree with the information given in Reading Passage 2?

In boxes19 - 23 on your answer sheet write

TRUE	*if the statement is true*
FALSE	*if the statement is false*
NOT GIVEN	*if the information is not given in the passage.*

19 Ants find it easier to discover food containing pheromones.

20 Ants only follow trails marked by pheromones.

21 Longer routes are marked more strongly than shorter routes.

22 Only male soldier ants can fly.

23 Carpenter ants eat the timber.

Questions 24 – 26

Complete the summary below.

*Choose **NO MORE THAN THREE WORDS** from the passage for each answer.*

Parasitic queens intrude the nests of other ants killing the rival queen and being accepted by the ____24____ they then ____25____ which eventually grow up and enslave the colony ants. Ants are able to eat and ____26____ dead plants and animals.

READING PASSAGE 3

*You should spend about 20 minutes on **Questions 27 – 40** which are based on Reading Passage 3 below.*

History of American Immigration

Ancient peoples only loosely related to modern Asians crossed the Arctic land bridge to settle America about 15,000 years ago, according to a study offering new evidence that the Western Hemisphere hosted a more genetically diverse population at a much earlier time than previously thought. The early immigrants most closely resembled the prehistoric Jomon people of Japan and their closest modern descendants, the Ainu, from the Japanese island of Hokkaido, the study said. Both the Jomon and Ainu have skull and facial characteristics more genetically similar to those of Europeans than to mainland Asians.

The immigrants settled throughout the hemisphere, and were in place when a second migration — from mainland Asia — came across the Bering Strait beginning 5,000 years ago and swept southward as far as modern-day Arizona and New Mexico, the study said. The second migration is the genetic origin of today's Eskimos, Aleuts and the Navajo of the U.S. southwest. The study in today's edition of the Proceedings of the National Academy of Sciences adds new evidence to help settle one of anthropology's most contentious debates: Who were the first Americans? And when did they come?

"When this has been done before, it's been done from one point of view," said University of Michigan physical anthropologist C. Loring Brace, who led the team of researchers from the United States, China and Mongolia who wrote the new report. "We try to put together more dimensions." For decades, anthropologists held that the Americas were populated by a single migration from Asia about 11,200 years ago — the supposed age of the earliest of the elegantly crafted, grooved arrowheads first found in the 1930s in Clovis, N.M. By the end of the 1990s, however, the weight of evidence had pushed back the date of the first arrivals several thousand years. A site at Cactus Hill, near Richmond, may be 17,000 years old.

In Chile, scientists excavating a 12,500-year-old settlement at Monte Verde have found evidence of a human presence that may extend as far as 30,000 years. But as the migration timetable slipped, additional questions and controversies have arisen. The 1996 discovery in Kennewick, Wash., of the nearly complete skeleton of a 9,300-year-old man with "apparently Caucasoid" features stimulated interest in the possibility of two or more migrations — including a possible influx from Europe.

The new study attempted to answer this question by comparing 21 skull and facial characteristics from more than 10,000 ancient and modern populations in the Western Hemisphere and the Old World. The findings provide strong evidence supporting earlier work suggesting that ancient Americans, like Kennewick Man, were descended from the Jomon, who walked from Japan to the

Asian mainland and eventually to the Western Hemisphere on land bridges as the Earth began to warm up about 15,000 years ago at the end of the last Ice Age.

Brace described these early immigrants as "hunters and gatherers" following herds of mastodon first into North America, and eventually spreading throughout the hemisphere. Because the North — in both Siberia and Canada — was still extremely cold, only a limited number of people could make the trek and survive. So immigration slowed, Brace said, for about 10 millennia. Then, about 5,000 years ago, agriculture developed on mainland Asia, enabling people to grow, store and carry food in more inhospitable areas. Movement resumed, but the newcomers were genetically Asians — "distinct racially" from the first wave, Brace added.

The second wave spread across what is now Canada and came southward, cohabiting with the earlier settlers and eventually creating the hybrid population found by the Spaniards in the 15th century. While many researchers agree on the likelihood of two migrations, both their timing and origin are matters of dispute. Brace's team suggests that both movements occurred after the last Ice Age began to moderate between 14,000 and 15,000 years ago.

But University of Pennsylvania molecular anthropologist Theodore Schurr said genetic data in American populations suggest that humans may have been in the Western Hemisphere much earlier — 25,000 to 30,000 years ago. This would mean that the first wave came before the "glacial maximum", between 14,000 and 20,000 years ago, when the Ice Age was at its fiercest and "human movement was practically impossible," Schurr said. "Were there people here before the last glacial maximum?" he asked. "The suggestion is, 'Yes.' "

The third wave arose in the American continent around the year 1000, when a small number of Vikings arrived. Five hundred years later, the great European migration began. In some cases, the co-existence of Europeans and Native Americans was peaceful. In other cases, there were cultural clashes, leading to violence and disease. Many people from Africa, however, were bought here against their will to work as forced laborers in the building of a new nation. As early as 1619, slaves from Africa and the Caribbean were brought forcibly to America. Later, 102 English colonists (later referred to as the "Pilgrims") set sail in 1620 on the Mayflower. They landed in Plymouth, Massachusetts. This is generally considered by many to be the "start" of planned European migration! In 1638, just 18 years after the Mayflower, the Swedes began their migration to America. Unlike the Pilgrim Fathers, the Swedes were not religious dissenters — they were an organized group of colonizers sent by the Swedish Government to establish a colony in Delaware. In 1655, the colony was lost to the Dutch. In the mid-1840s, a wave of Swedish migration began with the landing of a group of migrant farmers in New York and continued up to World War I.

During the colonial era most of the immigrants to the U.S. came from Northern Europe. Their numbers declined during the 1770s, but picked up during the mid 1800s. New arrivals came from several countries, but mostly from Germany and Ireland where crop failures caused many to leave their homelands. Other groups also arrived from the Netherlands, Spain, Italy, the Scandinavian countries, and Eastern Europe.

--- Adapted from: www.freerepublic.com

www.rapidimmigration.com

Questions 27 – 30

Do the following statements agree with the information given in Reading Passage 3?

In boxes 27 – 30 on your answer sheet write

YES	*if the statement agrees with the writer*
NO	*if the statement contradicts the writer*
NOT GIVEN	*if there is no information about this in the passage.*

27 The Jomon people of Japan were originally from Europe.

28 Eskimos, Aleuts and Navajos are closely related.

29 The oldest human remains were found in Asian.

30 Early immigrants could only survive in the warm places.

Questions 31 – 35

Complete the table below.

Choose NO MORE THAN THREE WORDS from the passage for each answer.

	People	Time
Example	Jomon	13000 BC
	31	3000 BC
	32	1000 AD
	33	1500 AD
	34	1619 AD
	35	1620 AD

Questions 36 – 40

*Using **NO MORE THAN THREE WORDS** from the passage, answer the following questions.*

36 What did many researchers disagree about two migrations?

37 During what time period was human movement practically impossible?

38 What did the Europeans bring with them in the third migration wave?

39 What kind of people were the English colonists on the Mayflower?

40 What caused most Irish people to emigrate to America?



INTERNATIONAL ENGLISH LANGUAGE TESTING SYSTEM

ACADEMIC READING TEST 8

TIME ALLOWED: 1 hour
NUMBER OF QUESTIONS: 40

INSTRUCTIONS
WRITE ALL YOUR ANSWERS ON THE ANSWER SHEET

The test is in 3 sections:

Reading Passage 1	Questions 1 – 13
Reading Passage 2	Questions 14 – 26
Reading Passage 3	Questions 27 – 40

Remember to answer all the questions. If you are having trouble with a question, skip it and return to it later.

READING PASSAGE 1

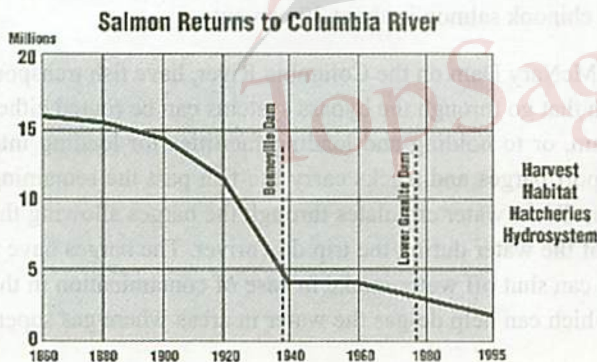
*You should spend about 20 minutes on **Questions 1 – 13** which are based on Reading Passage 1 below.*

Save Salmon

The Columbia River Basin is North America's fourth largest, draining about 250,000 square miles and extending throughout the Pacific Northwest and into Canada. There are over 250 reservoirs and around 150 hydroelectric projects in the basin, including 18 mainstem dams on the Columbia and its main tributary, the Snake River.

The US Army Corps of Engineers operates nine of ten major federal projects on the Columbia and Snake rivers, and Dworshak Dam on the Clearwater River, Libby Dam on the Kootenai River, and Albeni Falls Dam on the Pend Oreille River. The federal projects are a major source of power in the region, and provide flood control, navigation, re-creation, fish and wildlife, municipal and industrial water supply, and irrigation benefits.

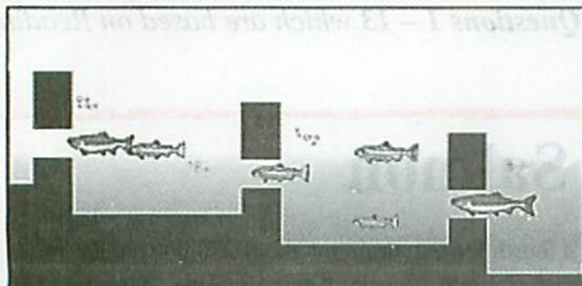
The Columbia River Basin provides habitat for five species of salmon (chinook, coho, chum, sockeye and pink), steelhead, shad, smelt and lamprey. Salmon hatch in fresh water rivers and tributaries where they rear for a year or two. They then migrate to and mature in the ocean, and return to their place of origin as adults to spawn. Salmon live two to five years in the ocean before returning to spawning areas.



A number of factors have contributed to the decline of salmon stocks in the Columbia and Snake River Basin. Overharvesting in the late 1800s into the early 1900s, effects on habitat from farming, cattle grazing, mining, logging, road construction, and industrial pollution, and the complex of tributary and mainstem dams all have had an impact. A variety of ocean conditions including currents, pollution, temperature changes, and nutrient base affect salmon survival. Dams clearly have had a significant impact, particularly those that eliminated access to fresh water habitat (preventing adult fish from returning to spawn), and those through which fish passage is provided but at reduced levels from natural conditions.

The dams impede juvenile and adult migrations to and from the ocean by their physical presence and by creating reservoirs. The reservoirs behind the dams slow water velocities, alter river temperatures, and increase predation potential. Reduced water velocity increases the time it takes juveniles to migrate downstream, higher water temperatures may have adverse effects on juvenile and adult behavior, and predators find prey more easily in slower-moving water. The Corps operates a series of eight dams on the lower Columbia and Snake rivers that affect the habitat and migration of salmon. These dams are equipped with adult and juvenile fish passage facilities.

Adult fish ladders at all eight lower Columbia and Snake dams were integrated into the design of the dams beginning with Bonneville in 1938. These ladders consist of a series of steps and pools which provide a gradual upward climb over the dams for returning adults. To steer the adults to the ladders, "attraction" flows at the downstream ladder entrances simulate conditions that would be found at the base of natural waterfalls. The concept has proved effective for adult fish passage.



Currently, juvenile fish can migrate past the dams by several routes: through the turbine; through the juvenile fish bypass system; or over the dam spillway. Some fish are transported past the dams by barge and truck under the juvenile fish transportation program. At the Dalles Dam, fish are bypassed through the ice and trash sluiceway.

The juvenile fish bypass systems in place at seven of the eight lower Columbia and Snake River dams guide fish away from turbines by means of submerged screens positioned in front of the turbines. The juvenile fish are directed up into a gatewell, where they pass through orifices into channels that run the length of the dam. The fish are then either routed back out to the river below the dam, which is called "bypassing" or, at the four dams with fish transport facilities, fish can be routed to a holding area for loading on specially equipped barges or trucks for transport downriver. The juvenile bypass systems guide 80 to 90 percent of steelhead salmon and 60 to 70 percent of spring/summer chinook salmon away from the turbines and upward through the bypass channel. This percentage measure is called fish guidance efficiency, and the rates vary from dam to dam. The fish guidance efficiency for fall chinook salmon is about 30 percent.

Three of the four Snake River dams, and McNary Dam on the Columbia River, have fish transport facilities. At these four dams, juvenile fish that go through the bypass systems can be routed either directly back into the river below the dam, or to holding and loading facilities for loading into barges or trucks for transport. The transport barges and trucks carry the fish past the remaining projects for release below Bonneville dam. River water circulates through the barges allowing the fish to imprint the chemicals and smells of the water during the trip downriver. The barges have a closed-circuit recirculation system which can shut off water intake in case of contamination in the river. They also have pumping systems which can help de-gas the water in areas where gas supersaturation is a problem.

The Corps runs the Juvenile Fish Transportation Program in cooperation with National Marine Fisheries Service, and in accordance with the National Marine Fisheries Service hydropower Biological Opinion for salmon. Fifteen to 20 million salmon and steelhead have typically been transported each year over the past several years. The program has come under criticism in recent years from state and tribal fishery agencies and environmental groups, who believe that rather than putting fish in barges, efforts should concentrate on improving in-river migration conditions.

Hydropower operations can be modified to improve in-river migration conditions for fish. During the juvenile fish migration seasons, from late March until fall, flows in the river are augmented, and water is spilled at the dams, to aid juvenile migration.

— Adapted from: www.nwd.usace.army.mil

Questions 1 – 4

*Using **NO MORE THAN THREE WORDS** from the passage, answer the following questions.*

1 How many rivers are mentioned in the second paragraph?

2 How many different kinds of fish are mentioned in the third paragraph?

3 How old are salmon when they return to their place of origin?

4 Apart from ocean conditions and dams, how many factors have contributed to the decline of salmon stocks?

Questions 5 – 8

Complete the summary below.

*Choose **NO MORE THAN THREE WORDS** from the passage for each answer.*

Reservoirs slow down the rate of ___5___ increase ___6___ and encourage predators. Eight dams on the lower Columbia and Snake rivers have ___7___ to cope with these problems. Fish ladders began in ___8___ for the returning adult fish.

Questions 9 – 13

Do the following statements agree with the information given in Reading Passage 1?

In boxes 9 – 13 on your answer sheet write

YES	*if the statement agrees with the writer*
NO	*if the statement contradicts the writer*
NOT GIVEN	*if there is no information about this in the passage.*

9 There are now juvenile fish bypass systems at all of the lower Columbia and Snake River dams.

10 Summer is a better time than autumn for returning Chinook salmon.

11 There are more barges than trucks for juvenile fish.

12 The Juvenile Fish Transport Program has been criticized by three distinct groups lately.

13 Enlarged river flows from late March to fall can help juvenile migration.

READING PASSAGE 2

*You should spend about 20 minutes on **Questions 14 – 26** which are based on Reading Passage 2 below.*

Questions 14 – 18

*Reading Passage 2 has 6 paragraphs **A – F**.*

*From the list of headings below choose the most suitable headings for paragraphs **A – E**.*

*Write the appropriate numbers **(i – x)**.*

***NB** There are more headings than paragraphs so you will not use all of them.*

List of Headings

i	Wind is stronger than man
ii	Aswan granite and obelisk
iii	Early theories of how to build pyramids
iv	An amateur group and a novel idea
v	Popular but not perfect explanations
vi	Favourable conditions of harvesting the wind
vii	The inspiration came from museum
viii	Small tests of wind power
ix	The feasibility of the theories was proved
x	More advanced theories

14 Paragraph **A**

15 Paragraph **B**

16 Paragraph **C**

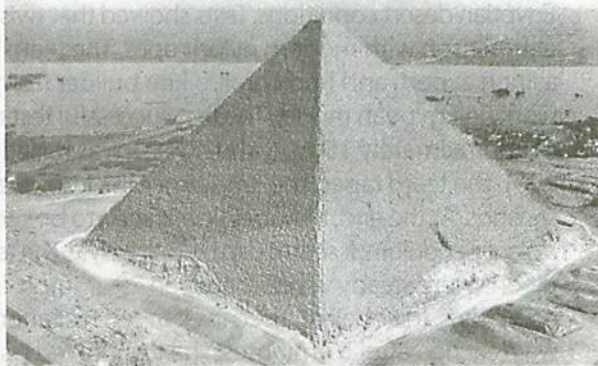
17 Paragraph **D**

18 Paragraph **E**

On the Wings of a Kite

How were the pyramids built? How were obelisks erected? A new theory from a group of American amateur kite enthusiasts has provided new inroads in trying to answer this mystery.

A. Millions of words have been written on how the pyramids and obelisks of ancient Egypt were erected. Theories put forward include a massive slave labour force, a theory which some Egyptologists still adhere to. However, most engineers know that a skilled labour force was much more advantageous, rather than a mass presence of unskilled labourers. As to the mechanism by which this skilled labour force built the pyramids and erected the obelisks? For the pyramids, a "ramp method" is proposed, even though this would mean that for the Great Pyramid, the ramp would be a mile long, and would require more material and construction effort than the building of the pyramid itself. As to the erection of obelisks, the "sandpit method" is the most adhered to theory, in which a sand hill was constructed around the site of the obelisk, with the obelisk then lowered into position.



B. Dr Maureen Clemmons' interest in Egyptian building techniques started when she read an article in the January 1997 Smithsonian about the attempt to raise a 40-ton obelisk resting in an ancient quarry in Aswan, Egypt. The granite of Aswan was the favoured stone from which obelisks were carved. These were then transported — mostly via the river Nile — further north, mostly in the region of Thebes/Luxor, which at that time formed the capital of the Egyptian Empire. Even though the obelisk was relatively light in monument terms (40 tons compared to other obelisks weighing 100–300 tons), the crew was unable to produce the lift needed to raise the obelisk. Dr. Maureen Clemmons pondered the problem and has since offered a new possibility as to how the ancient Egyptians may have erected their obelisks: wind power, using kites. For seven years leading up to January 2004, Clemmons was the main motivator of a team of amateurs whom received little to no funding, all of them trying to show practically that obelisks could be erected by harbouring the power of the wind.

C. It is well known that the ancient Egyptians had been successful in controlling and harvesting the power of the wind: they sailed along the Nile, which formed the artery of ancient Egypt. Furthermore, Egypt was blessed with a rather steady wind direction, coming mainly from the North West. Even though we know that the Egyptians sailed the Nile from very early times, there are few references or written records of this enterprise. Like the building of the pyramids or the obelisks, the Egyptians seemed to show no interest in committing to writing how these things were done... Clemmons wondered whether the ancient Egyptians applied their acquired knowledge of the wind on the Nile also on land. The inspiration came when Clemmons saw a building frieze in a Cairo museum, showing a wing pattern in bas-relief that did not resemble

any living bird, directly below which were several men standing near vertical objects that could be ropes. Was this carving showing how the ancient Egyptians had built their monuments? Kites are known to provide pull and lift, two great forces that, if harboured, could be great allies in their construction efforts. In the 20th century, Egyptologists have also uncovered that the ancient Egyptians were indeed aware of pulleys, a required ingredient in harvesting wind power as performed by Clemmons' team.

D. After years of initially small tests, the first "real" test involved the erection of a 3.5 ton obelisk. The test site was at Quartz Hill in the California desert, hoping to mimic some of the Egyptian desert conditions. Tests showed that twisted hemp rope when wet could stand the comparison with modern nylon ropes. The team relied on the work of Dr Elizabeth Barber, a linen expert, and Rod Thrall, a kite builder from Oregon to transform the test site into a working Egyptian model. The first successful test occurred on April 14, 2001. In wind speed of approximately 15mph, the obelisk was raised in approximately one hour. On June 23, 2001, the team raised the 3m-tall obelisk into vertical position in 22mph winds in under 25 seconds. At the end, the obelisk was seen to be swinging from the top of its lifting frame, like a giant pendulum. It seemed to be that easy...The team now knew that the best operating conditions were steady winds, between 20–25mph. In January 2004, working in optimal wind conditions, the obelisk raised itself to ten feet after 27 minutes. An angle of 80 to 85 degrees was reached after 57 minutes. The test proved a success as it showed that a single kite was able to provide sufficient lift to raise an obelisk. Though the team focused on the erection of obelisks, the "pyramid building" scheme was not neglected. In 2003, the team showed how two ton stones easily moved on rollers, propelled by the powers of the wind via a kite. The system also allowed stones to be lifted up a ramp.

E. With initial success of showing that wind power can be harnessed and used in the building industry, Egyptologists have nevertheless pointed out that Clemmons has only shown a possible technique — but that this does not mean that the ancient Egyptians followed this technique. This in itself is true, but what Egyptologists fail to add is that their preferred explanations equally fall short of that criterion. What makes Clemmons' approach specifically of interest — over the cherished explanations — is the speed in which these complex tasks are performed. Mass labour and massive ramps could indeed — possibly — build the Great Pyramid. But if this pyramid was built in approximately twenty years, as Egyptologists argue, then it means that one stone was lifted into place approximately every two seconds (under normal working conditions). In the ramp theory, this seems hardly plausible. However, in the wind power theory, we see how fast this process can be. Furthermore, the "wind method" requires far less ancillary work to be carried out than the "ramp method". In the "sandpit method", weeks would be spent constructing the sand hill and lowering the obelisk in place. In the "wind method", a mobile if not reusable lifting frame might require a few hours or days to be put into place, with the obelisk lifted in a matter of hours.

F. Clemmons' method has one final advantage; the bodies of the slave labour force have not been found; the remains of the giant ramps around the pyramids has equally not been found. There are, in short, no archaeological traces of a method that should have left traces. But the "wind method" would not leave such traces — and would also be a quick to clean up method once the work is completed.

--- *www.philipcoppens.com*

Questions 19 – 26

Do the following statements agree with the information given in Reading Passage 2?

In boxes 19 – 26 on your answer sheet write

YES	*if the statement agrees with the writer*
NO	*if the statement contradicts the writer*
NOT GIVEN	*if there is no information about this in the passage.*

19 Unlike scientists most Egyptian experts believe that the pyramids were built by a massive force of unskilled labour.

20 The Smithsonian attempt in 1997 failed to erect an obelisk.

21 Unfortunately all early written records of pyramids and obelisks were lost in the Nile.

22 In January 2004 Clemmons saw a carving in Cairo which gave her the clue she needed.

23 The first real test on April 14, 2001 was successful using a team of three.

24 After proving that a single kite could lift an obelisk the team switched its attention to pyramid building.

25 Clemmons theory ultimately failed compared to the other theories because it could not be proved that the Egyptians used wind power.

26 Of the three methods mentioned only the ramp method would leave no traces.

READING PASSAGE 3

*You should spend about 20 minutes on **Questions 27 – 40** which are based on Reading Passage 3 below.*

A Weighty Issue

According to a report produced by the British Medical Association (BMA), the state of adolescent health in the UK is in a poor condition. A key problem is obesity, which is thought to be caused by a poor diet with too many high-fat, high-calorie foods, along with a lack of exercise. In fact, the report claims that excess body weight is 'now the most common childhood disorder in Europe', and a staggering one in five youngsters aged 13 to 16 are overweight and nearly one in five 15-year-olds are obese.

The figures are worrying as being obese can cause both immediate and future serious health problems. These include the risk of high blood pressure, heart disease and type 2 diabetes. It's also the 'most important dietary factor in cancer', said a spokesperson for the British Nutrition Foundation (BNF), and can cause complications during and after pregnancy.

Type 2 diabetes used to only affect middle-aged people, but in recent years cases have been detected in teens as young as 13-years-old for the first time. This, in itself, is believed to be another direct factor linked to the rising levels of obesity. And children affected by obesity are likely to have a shorter lifespan than their parents.

As well as physical illness and disease, being obese or overweight can cause a range of psychological problems too. The BMA report highlighted that it can significantly affect well-being, 'with many adolescents developing a negative self image and experiencing low self-esteem'. It can also lead to eating diseases, bullying, depression, and feelings of loneliness and nervousness.

Doctors use a measurement system called the body mass index (BMI) to assess whether people are a healthy weight, overweight or obese. It's worked out by dividing a person's weight in kilograms by their height in metres squared. For example, if you are 1.7 metres tall and weigh 68 kilos, your BMI would be 23.5 (68 divided by 1.7 x 1.7), which falls into the desirable or healthy range. According to the BMI chart, adults (over 18s) are overweight if they have a BMI of between 25 and 30, and they're obese if it's 30 or over.

Body Mass Index (BMI) guide for people aged 18 and over

BMI (kg/m^2)	
Less than 20	Underweight
Over 20 to 25	Desirable or healthy range
Over 25 to 30	Overweight

Over 30 to 35	Obese (class I)
Over 35 to 40	Obese (class II)
Over 40	Severely obese (class III)

A similar method is used for children, but instead it has a sliding scale linked to age. As well as BMI levels, the areas where the fat is deposited in the body is important, too, explained a spokesperson for the BNF. 'People who have extra fat around their middle, a body we call apple shaped, are at a greater risk of some diseases than those who have most of the extra weight around their hips and thighs, or are pear shaped.'

When it comes to preventing and treating excess weight and obesity, experts believe a healthy balanced diet and regular exercise are crucial. The key to maintaining a good weight is to balance your energy intake and output, as weight is gained if you regularly eat more than you burn off.

Obese children may require a specially developed programme, which is likely to focus on healthy eating, exercise and social support. In the case of children, it's beneficial for the whole family to adopt healthier behaviours and it's important not to single out a child. Likewise, the Royal College of Paediatrics suggests parents should be actively involved in helping children manage their weight, and says obesity problems should be dealt with slowly, by making gradual changes to eating habits and physical activity.

Increasingly inactive lifestyles and couch-potato tendencies, for example watching television and playing computer games, are thought to be contributors to obesity, so being more active is very helpful. The minimum recommended level of activity is at least 30 minutes of moderate-intensity activity, five days a week. Moderate intensity means a state in which your breathing and heart rate are faster than normal.

Siobhan Weir, physical activity programme manager at the Health Protection Agency said, 'Getting people to take some moderate activity as opposed to being sedentary is likely to have the greatest beneficial effect on their health.' A good form of exercise for those who have been leading fairly inactive lives — and one that's free — is walking, she says. 'Research shows that walking a mile briskly uses the same energy as running a mile and regular physical activity can reduce weight by as much as one stone in three months. To really reap the benefits, aim to walk briskly so that you are feeling warmer and slightly out of breath.' If walking isn't for you, there's a whole range of other activities available, from team sports such as football, hockey or basketball, classes such as aerobics or sessions at the gym, to alternatives such as martial arts, yoga or tai chi. The key is to find something you enjoy and stick to it.

It's easy to put off healthy eating habits and exercise, but the sooner we start, the better the outcome for our health. By starting at a young age, the chances are good habits will continue into the future too.

--- *Adapted from: www.channel4.com, Rachel Newcombe*

Questions 27 – 30

Choose the appropriate letters A – D and write them in boxes 27 – 30 on your answer sheet.

27 A report by the BMA states that nearly 40% of 15-year-olds are

- **A** overweight.
- **B** obese.
- **C** overweight or obese.
- **D** none of the above.

28 According to the BMA and BNF being obese can lead to at least ________ different kinds of health problems

- **A** 4
- **B** 5
- **C** 6
- **D** 7

29 According to paragraphs 2 and 3 type 2 diabetes ________

- **A** is only a cause of obesity.
- **B** is both a cause and effect of obesity.
- **C** is only an effect of obesity.
- **D** is none of the above.

30 The BMA report mentions ________ psychological problems.

- **A** 2
- **B** 3
- **C** 7
- **D** 8

Questions 31 – 35

Complete the summary below.

*Choose **NO MORE THAN THREE WORDS** from the passage for each answer.*

Body Mass Index (BMI) assesses whether adults are below, within or above a **31** ______ using weight and height as measurements. For children a **32** ______ related to age is included. People who are **33** ______ shaped are less at risk than those who are **34** ______ shaped. It is believed that a **35** ______ energy intake and output is the key to maintaining a good weight.

Questions 36 – 40

Complete the sentence below (Questions 36 – 40) with word taken from Reading Passage 3.

*Use **NO MORE THAN THREE WORDS** for each answer.*

Write your answers in boxes 36 – 40 on your answer sheet.

36 Obese children need social support which usually comes from ____________.

37 At least ____________ of exercise is recommended every week.

38 If a person is said to be sedentary they have ____________.

39 Research shows that ____________ can lose weight over a short period of time.

40 Adults are ____________ if they have a BMI of 30.

INTERNATIONAL ENGLISH LANGUAGE TESTING SYSTEM

ACADEMIC READING
TEST 9

TIME ALLOWED: 1 hour
NUMBER OF QUESTIONS: 40

INSTRUCTIONS

WRITE ALL YOUR ANSWERS ON THE ANSWER SHEET

The test is in 3 sections:

Reading Passage 1	Questions 1 – 13
Reading Passage 2	Questions 14 – 26
Reading Passage 3	Questions 27 – 40

Remember to answer all the questions. If you are having trouble with a question, skip it and return to it later.

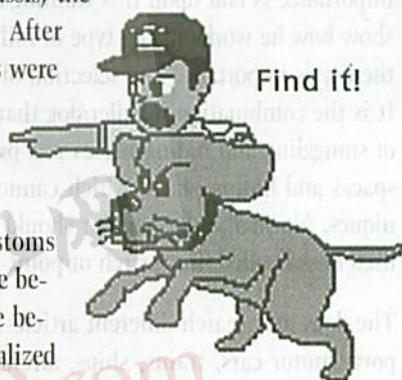
READING PASSAGE 1

*You should spend about 20 minutes on **Questions 1 – 13** which are based on Reading Passage 1 below.*

Dogs Detecting Drugs

At the time when the smuggling of tablets began to increase seriously, comparatively few confiscations were made. The reason for this was partly that the Customs officers at this time were not prepared for the fight against illicit drugs, and partly that this kind of smuggling took place under circumstances that made it difficult to locate the hidden products.

By means of intelligence gathered and investigations carried out it could be established that the drugs were usually transported in private cars and hidden in the chassis, the frames and the tyres, and in other spaces difficult to search. After having investigated various possibilities, two technical methods were taken forward, first the so-called narcotic detector, working on the basis of a number of rays from a radio-active source, and secondly, the narcotic dogs.



The first narcotic dogs were selected and trained for the Customs during the latter part of 1966 and were taken into service in the beginning of 1967. Four dogs and their handlers were used at the beginning. Dog training for different purposes in Sweden is centralized and takes place at the Army Dog Training Centre, where police dogs, army dogs, blindleader dogs, avalanche search dogs, etc. are trained. This school was thus commissioned by the Board of Customs to train four dogs with handlers on a trial basis. The experience available was, in Sweden as well as in other countries, very meagre.

Initially dogs from the German Shepherd breed were trained, simply because the Army already had a suitable stock. By and by it was found out that dogs of the Labrador breed are suited to training for the search for drugs as well. The Labrador dog is normally calm and gentle and makes the search quietly and systematically. It also seems to be more persistent than the German Shepherd which, as a general rule, must be regarded as more aggressive. Many people have, by tradition, awe and fear for the German Shepherd which is often associated with guard and watchdogs. As the narcotic dog has to work among travellers it was regarded as safer and more psychologically appropriate to choose a breed towards which people have no prejudices.

The training of the dog to trace drugs starts when it is twelve to eighteen months old. The first part of the training, the so-called obedience training, has been finished at that time and this includes 4 to 6 months of normal obedience drill. Then the dog handler is sent to the dogs' training centre, to take over the dog. The first days are spent on becoming familiar with the dog and, after this, a 6 week long training starts, to teach the dog to trace narcotic drugs. During this training the drugs will be hidden in different objects and in different surroundings. The last week of the "drug training" is spent entirely

on so-called environment training. It is important to vary the hiding-places within a wide frame as otherwise there is a risk that the dog associates the illicit drugs with a certain milieu or with a certain object.

The dogs are basically taught to search for both cannabis and psychotropic substances. It has proved possible to train the dogs for both these types of drugs simultaneously. The principle is that the training of a dog seems to give the better results the fewer substances and smells he has been trained to search for. An interesting question can be mentioned in this connexion. There seems to be little search into what the dog's organ of smell really registers. A dog, which has been trained to search for tablets containing narcotics indicates harmless headache pills as well and even, e.g., talcum powder. Research-work in this respect might be necessary.

The environment training mentioned above is conducted, in ships, lorries, warehouses and engine-rooms, to accustom the dog to noise, traffic, unknown and disturbing odours, etc. A great deal of importance is laid upon this training and it is, at the same time, a kind of examination for the dog to show how he works in the type of milieu which will later be his working field. Not only the choice of the dog is important. The selection of dog handlers is at least as important in achieving a good result. It is the combination handler/dog that gives results. The handler's professional knowledge of methods of smuggling and hiding-places is a prerequisite if the dog shall be used rationally and be able to find spaces and hiding-places which cannot be discovered by ocular examination or ordinary search techniques. Normally, the handler should choose an object and search area for the dog and this is mainly used for so-called fine-search or point-search.

The dogs may search different articles. They are used for a strict search of all kinds of means of transport (motor cars, trains, ships, aircraft). They are also used in connexion with house searches and finally in the examination of goods, such as commercial goods, luggage, postal parcels, letters, etc. If the dog is used monotonously to search for certain objects only, for instance private cars during rather long periods, the dog seems to become disinterested in searching. The dog's interest seems to diminish gradually. This risk is greatest at some small posts where there is only, or mainly, a special kind of traffic. Because of that fact Sweden tries to let the dog teams operate within larger regions and with regular intervals they may visit different Customs ports or places of entry in their region.

Sweden knows that the professional smuggler of drugs tries to avoid places where he knows that there are detector dogs. Efforts are also made to deceive the dogs, for instance by putting the drugs in packings which prevent too much emission of smells or by adding strong-smelling substances with repellant or disturbing effects on the dog. Because of that Sweden tries to train the dogs to search for drugs to which have been added, or which have been concealed in, different strong-smelling substances. Experience shows that a dog well trained in this respect can detect drugs even prepared in this way.

--- Adapted from: www.unodc.org

Questions 1 – 4

Complete the sentence below (Questions 1 – 4) with word taken from Reading Passage 1.

*Use **NO MORE THAN THREE WORDS** for each answer.*

Write your answers in boxes 1 – 4 on your answer sheet.

1 As drug smuggling became more prevalent it was apparent that Customs were suffering from lack of preparation and inability to find ____________.

2 Narcotic dogs were initially trained on a ________________ in Sweden.

3 Generally speaking, the German Shepherd is viewed by most people as more ___________ in contrast to the Labrador which is docile.

4 The word used to describe the underneath of a car is ___________.

Questions 5 – 8

Do the following statements agree with the information given in Reading Passage 1?

In boxes 5 – 8 on your answer sheet write

YES	*if the statement agrees with the writer*
NO	*if the statement contradicts the writer*
NOT GIVEN	*if there is no information about this in the passage.*

5 Dogs start training at the Army Dog Training Centre when they are between six and twelve months old.

6 Even after training sometimes dogs are unable to distinguish between narcotic and non-narcotic substances.

7 Dogs will specialize in areas such as lorries or warehouses to the exclusion of others.

8 Dog handlers are chosen for their professional knowledge of smugglers habits.

Questions 9 – 13

Complete the summary below.

*Choose **NO MORE THAN THREE WORDS** from the passage for each answer.*

Dogs are used to search transport, houses and goods of ___9___. They cannot be restricted to ___10___ otherwise their effectiveness ___11___ gradually. Thereby Swedish dog teams move within ___12___ at ___13___.

READING PASSAGE 2

You should spend about 20 minutes on ***Questions 14 – 26*** *which are based on Reading Passage 2 below.*

Public Transportation Systems

Modern public transportation systems originated in Europe during the 16th and 17th centuries. Horse-drawn carriages provided for-hire transportation between major towns in Europe, but service was erratic and slow. The hackney carriage, a small horse-drawn coach, was used within large cities. It resembled the modern taxicab in terms of service and operation. Eventually, larger wagons such as stagecoaches were used to carry passengers along established routes within a city, and in 1819 regular service routes were operational in Paris. A similar service began in New York City in 1827. The stagecoach was followed by the omnibus, a horse-drawn wagon designed for efficiently transporting several passengers over short distances. George Shillibeer, an enterprising coach builder, built the first omnibus for use in Paris, and he eventually started an omnibus line in London in 1829.

In 1832 horse-drawn streetcars were introduced in New York City. These streetcars resembled omnibuses but ran on iron rails in the street rather than on wagon wheels. The rails reduced friction considerably, allowing horses to pull the rail cars more easily than regular wagons could be pulled. The more efficient streetcar gradually began to replace the omnibus in many cities. By the 1860s most U.S. cities had horse- or mule-powered street railways franchised by the city.

Another type of propulsion for streetcars came from Andrew Hallidie, who devised a cable system that ran along the length of track. Streetcars gripping the cable were pulled along. The first successful cable car system was opened in San Francisco in 1873. Cable cars could reach speeds of 21 km/h (13 mph) and did not require the use of horses. Horses were reliable, but they produced large amounts of waste, which usually lay in the street, and the horses were often subject to disease. Cable cars were popular, and cable car systems were installed in about 30 cities, but these systems were eventually replaced by electric streetcars. San Francisco still operates a small cable car system, both because of the tourist appeal of this system and because of its ability to operate on steep grades.

A rapid revolution in urban public transportation occurred following the completion in 1888 of the first electrified portion of a horse-drawn streetcar line in Richmond,

Virginia. Because of its speed and versatility, the electric streetcar became popular throughout the country, providing basic transportation in many U.S. cities. Subways also proved to be a popular solution to rapid transit. The first electric subway began service in London in 1890. Boston, Massachusetts, became the first U.S. city to open an electric subway in 1897. New York City broke ground for its system in 1900, and the first subway line there opened in 1904.

The interurban electric railway connected nearby cities, and it served as an efficient means of transportation for several decades before the automobile became popular. Interurbans traveled on an extensive network of tracks, which were longer than streetcar routes but shorter than the routes between cities of locomotive-powered trains. The interurban routes often ran from city centers into the countryside or to other cities, at speeds of up to 100 km/h (60 mph). The interurban industry went into decline in the 1920s because of competition from automobiles and intercity buses.

When the private automobile became available in the 1910s and 1920s, many streetcar and interurban railway companies went bankrupt. The automobile provided a degree of flexibility that was not possible with public transportation. Following a peak in 1923, streetcars began to decline. In the 1930s the Electric Railway President's Conference Committee (PCC) made an effort to revitalize street railway systems by developing the modern PCC car to replace the older and varied streetcars then in use. The PCC car encouraged public rail use, but most cities were already switching to gasoline- and diesel-powered buses, because buses allowed flexibility in route selection and freedom from overhead wires. In 1937 Paris became the first major city to stop using streetcars. The last U.S. streetcar was delivered to San Francisco in 1952. A handful of cities still operate streetcars, including San Francisco; Boston; Philadelphia, Pennsylvania; and Toronto, Ontario.

Between the end of World War II and the early 1960s, little innovation occurred in public transportation systems in the United States. The continuing decline of ridership, especially in smaller cities, extended a trend that began after World War I and continued after World War II. Beginning in the mid-1970s, however, massive infusions of public funds were used to expand service, and this effort reversed the trend of declining ridership. The gasoline shortages in the 1970s also contributed to increased ridership. Since 1984, public transportation ridership has shown little or no growth. Jobs and people have been moving to places where public transportation is unavailable or inconvenient. Nevertheless, a few cities have shown continued interest in investing in public transportation, especially in light-rail transit.

--- Adapted from: www.dashinet.com/transportation

Questions 14 – 17

Do the following statements agree with the information given in Reading Passage 2?

In boxes 14 – 17 on your answer sheet write

YES	*if the statement agrees with the writer*
NO	*if the statement contradicts the writer*
NOT GIVEN	*if there is no information about this in the passage.*

14 Hackney carriages were colored yellow just like modern taxicabs.

15 The first omnibus line was started in London in 1829.

16 Cable cars were pulled along by horses using cables attached to the track.

17 New York streetcars looked just like omnibuses apart from their wheels.

Questions 18 – 21

*Using **NO MORE THAN THREE WORDS** from the passage, answer the following questions.*

18 City transport really took off after part of a streetcar track was electrified in the city of ___________.

19 Underground travel first became possible in America in the year __________.

20 Intercity travelers could choose between locomotive and __________ trains.

21 Electric streetcars were powered by __________.

Questions 22 – 26

Match the following years with the appropriate public transportation system

A 1819

B 1832

C 1860s

D 1888

E 1923

F 1970s

22 iron railed streetcars

23 electric streetcars

24 regular stagecoach routes

25 height of popularity of streetcars

26 city streetcar business

READING PASSAGE 3

*You should spend about 20 minutes on **Questions 27 – 40** which are based on Reading Passage 3 below.*

Questions 27 – 31

*Reading Passage 3 has 12 paragraphs **A – L**.*

*From the list of headings below choose the most suitable headings for paragraphs **A – E**.*

*Write the appropriate numbers **(i – x)**.*

***NB** There are more headings than paragraphs so you will not use all of them.*

List of Headings	
i	Half a dozen
ii	Goodbye gender
iii	Old English, Middle English, and French
iv	In the 6th century and 7th century
v	Rivalry of plurals
vi	A library of languages
vii	An aristocracy vs. a peasantry
viii	The Norman Conquest of language
ix	Germanic tribes and Roman Empire
x	The origin of English

27 Paragraph **A**

28 Paragraph **B**

29 Paragraph **C**

30 Paragraph **D**

31 Paragraph **E**

Latin Influence in English

A. English has been called a Germanic language with a Romance vocabulary. Estimates of native (Anglo-Saxon) words in English range from 20%–33%, with the rest made up of foreign borrowings. A large number of these borrowings are Latinate, coming directly from Latin, from Latin through one of the Romance languages (French, Romanian, Italian, Portuguese, or Spanish) or from some other language (such as Greek) into Latin and then into English.

B. In the Dark Ages, the Germanic tribes who would later give rise to the English language (the Angles, Saxon, Frisians, and Jutes) traded and fought with the Latin speaking Roman Empire. Many Latin words for common objects therefore entered the vocabulary of these Germanic people even before the tribes reached Britain: anchor, butter, camp, cheese, chest, cook, devil, dish. Christian missionaries coming to Britain in the 6th century and 7th century brought with them Latin religious terms which entered the English language: altar, bishop, church, clerk, mass, minister, monk, nun, pope, priest, school.

C. The Norman Conquest of 1066 gave England a two tiered society with an aristocracy that spoke Norman French and a peasantry that spoke English. From 1066 until Henry IV of England ascended to the throne in 1399, the royal court of England spoke French. However, the Norman rulers made no attempt to suppress the English language. In 1204, the Normans lost their land holdings in France and became wholly English. By the time we see Middle English in the 14th century, the Normans had contributed roughly 10,000 words to English, of which 75% remain in use.

D. During the time that the aristocracy had ignored the English language, the natural tendency of the language toward simplification had been allowed to proceed without official oversight. The result of this simplification was the loss of grammatical gender in nouns and adjectives, the beginnings of the loss of the case system from Old English, simplified conjugations, and an overall loss of inflections. For example, of adjectival forms that existed in Old English, only two forms remained in Middle English, marking the singular and the plural, before becoming one form as in Modern English.

E. Old English had six ways of marking plural nouns. French, in common with all languages of the Western Romance branch, marked plurals with -s. Middle English, under influence from Norman French, had only two ways of marking plurals: -en and -s. The French -s eventually became the preferred form for marking regular plurals. In fact, only three instances of the -en form remain: brethren, children, oxen.

F. The combination of a French speaking aristocracy and an English speaking peasantry gave rise to many pairs of words with a Latinate word in the higher register and a Germanic word in the lower register. For example, the names of barnyard animals tend to be Germanic, from the names the English farmers and herders used: chicken, cow, ox, sheep, swine. The names of the animals when they appear on one's plate, as the aristocracy saw them, are of Latin ori-

gin: poultry, veal, beef, mutton, pork. Other such doublets include: close/shut; commence/begin; decapitate/behead; desire/wish; novel/new.

G. During the reign of the Normans, many words related to the ruling classes and the business of government entered English from French. Among these words are: city, conservative, countess, county, damage, empire, executive. A few words retain the French construction of noun followed by adjective, in contrast to the typical English construction of adjective plus noun: attorney general, court martial.

H. During the English Renaissance, from around 1500–1650, some 10,000 to 12,000 words entered the English lexicon, including lexicon. Many of these words were borrowed directly from Latin, both in its classical and medieval forms. Some examples include: allusion, democratic, enthusiasm, juvenile, sophisticated.

I. The dawn of the age of scientific discovery in the 17th and 18th centuries created the need for new words to describe newfound knowledge. Many words were borrowed from Latin, while others were coined from Latin roots, prefixes, and suffixes, and Latin word elements freely combine with elements from all other languages including native Anglo-Saxon words. Some of the words which entered English at this time are: analysis, apparatus, atomic, component, data.

J. As we saw with Latinate/Germanic doublets from the Norman period, the use of Latinate words in the sciences gives us pairs with a native Germanic noun and a Latinate adjective: head/capital, tooth/dental, tongue/lingual, heart/cardial, moon/lunar, sun/solar, earth/terrestrial, mother/maternal, father/paternal, brother/fraternal, book/literary, edge/marginal, house/domestic, door/portal, town/urban, light/optical, sight/visual, soldier/military.

K. It is not always easy to tell at what point a word entered English, nor in what form. Some words have come into English from Latin more than once, through French or another Romance language at one time and directly from Latin at another. Thus we have pairs like fragile/frail, army/armada, and corona/crown. The first word in each pair came directly from Latin, while the second entered English from French (or Spanish, in the case of armada). In addition, some words have entered English twice from French, with the result that they have the same source, but different pronunciations reflecting changing pronunciation in French, for example chief/chef (the former a Middle English borrowing and the latter modern). Multiple borrowings explain other word pairs and groups with similar roots but different meanings and/or pronunciations: canal/channel, poor/pauper, straight/strait/strict, disc/disk/dish/desk/dais/discus.

L. As new technologies are invented, people continue to turn to Latin for help in borrowing or coining new English words: altimeter, allopathic. otorhinolaryngology. As long as English remains the language of science and technology, Latin words will continue to find new life.

--- *Adapted from: www.answers.com*

Questions 32 – 36

Match together the following sentence halves.

Write the appropriate letter A – G in boxes 32 – 36 on your answer sheet.

32 Some common Latin/German doublets of the 17th and 18th centuries

33 In the 13th century the Norman French lost all their possessions in France

34 Some common Latin/German doublets of the Norman period

35 Roughly three quarters of English words

36 Germanic tribes learnt new Latin words from the Roman Empire through war and trade

A	with Latin religious terms.
B	before bringing them to England.
C	and so permanently settled in England.
D	are beef/cow, mutton/sheep and pork/swine.
E	are earth/terrestrial, house/domestic and sight/visual.
F	came directly from Latin.
G	came from overseas.

Questions 37 – 40

Do the following statements agree with the information given in Reading Passage 3?

In boxes 37–40 on your answer sheet write

YES	*if the statement agrees with the writer*
NO	*if the statement contradicts the writer*
NOT GIVEN	*if there is no information about this in the passage.*

37 The term court martial is an example of an adjective followed by a noun.

38 The word atomic has a Latin root with an Anglo-Saxon root.

39 Frail and crown are English words that came directly from the French.

40 Straight and strait mean the same but are pronounced differently.

INTERNATIONAL ENGLISH LANGUAGE TESTING SYSTEM

ACADEMIC READING TEST 10

TIME ALLOWED: 1 hour
NUMBER OF QUESTIONS: 40

INSTRUCTIONS

WRITE ALL YOUR ANSWERS ON THE ANSWER SHEET

The test is in 3 sections:

Reading Passage 1	Questions 1 – 13
Reading Passage 2	Questions 14 – 26
Reading Passage 3	Questions 27 – 40

Remember to answer all the questions. If you are having trouble with a question, skip it and return to it later.

READING PASSAGE 1

*You should spend about 20 minutes on **Questions 1 – 13** which are based on Reading Passage 1 below.*

Russian Archaeology



During the last fifteen years Russian archaeologists have been conducting extensive excavations in and around the city of Moscow and Great Novgorod. The artifacts and architectural features thereby uncovered have allowed a significantly improved understanding of medieval Russia. This period has a distinct time frame and refers to different events than the Middle Ages for Western Europe, which began in the 5th century with the fall of the Western Roman Empire to the Germanic barbarians, and whose end corresponds with the discovery and exploration of the New World in the 15th century. The Russian Middle Ages, by contrast, began in the 9th century with the establishment of the Rurik dynasty and ended in the 17th century when Peter the Great ushered Western civilization into Russia.

Some of the most interesting findings from the Medieval period occurred in the areas of the Kremlin and Red Square. The Kremlin, situated on a hill 125 feet above the level of the Moscow River, contains many remarkable edifices within its walls, which housed the throne and secular branches of government, as well as the church and the military. Although every medieval Russian town boasts a kremlin (from the Mongol word kreml meaning "fortress"), Moscow's Kremlin has a particularly rich history. Founded in 1147 by Yuri Dolgorukiy, Prince of Moscow, the first fortress was originally constructed of wood. Dolgorukiy's Kremlin, surrounded was sacked and burned to the ground during the Mongol invasion in 1238. Yet Moscow's growth and development were virtually unstoppable and the city soon recovered. The Kremlin, and the city which surrounded it were rebuilt, and in 1339 it stood with fortifications made of oak. These oak walls were replaced by stone some forty years later, and it was because of the white color of these new walls that Moscow became known as the "White City".

The excavation in the area of Red Square exposed ash and residue of a 1493 fire overlying a cultural layer of the 13th century. A well-preserved but crude wooden dwelling built during the late 13th century was unearthed, and served as an example of the architecture of this era. Fires were a constant threat in Medieval Russia since most dwellings — belonging to both the peasantry and nobility — were constructed of wood. Stone structures were impractical in the cold Russian climate because of the condensation associated with the tiled stoves used for heating. Such heating methods in wooden structures had disastrous results. In fact, fires consumed dwellings so often that by the 16th century Russians had devised a system of prefabricating

wooden dwellings which might be constructed and inhabited within the space of a week.

The Red Square excavation site also produced the first birch-bark document discovered in Moscow, a fragment of a legal text dating from the end of the 15th century. Such a find is highly unusual because Moscow's dry, oxidized soil is not conducive to the preservation of birch-bark, which occurs, in most cases, in water-logged soil conditions, such as in the Russian city of Novgorod.

The Great Novgorod is in Russia's north-west. In the Middle Ages it was a large political, economic and cultural center whose contribution to the development of the Russian state can hardly be overestimated. Last summer the Great Novgorod marked 50 years since the first archaeological finding — a birch-bark letter that was discovered by Valentin Yanin's team of archaeologists. A birch-bark letter is a piece of birch-bark on which letters were scratched with a pointed metal or bone rod called "stilo". Birch-bark was cheap, so everyone could buy it. By now 915 birch-bark letters have been found in the vicinity of Novgorod. Most ancient of the Novgorod birch-bark letters were "written" in the early 11th century, the latest — in the mid-15th century. Texts on birch-bark vary from pupils' exercises to state documents. The recent finding of an icon on birch-bark is the most ancient icon in Russia today. What matters for scientists is that the authors and receivers of birch-bark letters belonged to various sections of the city's population.

A great variety of birch-bark letters written by peasants, craftsmen, and traders allows the conclusion that literacy took deep root among the population of ancient Novgorod. In addition the residents of the city made use of beeswax plates, called ceras in Ancient Rome. What were ceras like? There was a hollow inside the plate filled with beeswax. A pointed rod, or "stilo", was also used in writing. Close to the edge the Novgorod beeswax plates had holes for joining them in the quantity that was required.

During archaeological excavations of the 10th–11th-century layer in Novgorod a book was found written on beeswax plates. "When I took that book into my hands," says Academician Valentin Yanin, "I felt dizzy. What I held was the book more ancient than the renowned Ostromirovo Gospels of 1056–1057. The book I held was written some 50 years earlier. It was the Book of Psalms, the most popular reading of Christians. It served both as a textbook and as a book for the general reader. In the 11th century all Orthodox Christians — Bulgarians, Serbs and Greeks — wrote in Church Slavonic language. Yet scientists proved that the notes on the cera were made by a Russian since neither Bulgarian nor Serb could make such mistakes and slips in writing.

The deciphered Book of Psalms was not meant for divine services but for the general reader. The note on the edge of the cera says it is meant for reading by laymen and the consolation of orphans and widows. Twelve similar ceras were found in other layers, yet letters on beeswax were preserved only on one of them. The design of ceras, alphabet on the back side and along the edges, shows that they were kind of notebooks for teaching how to write.

--- Adapted from: www.vor.ru

Questions 1 – 4

Do the following statements agree with the information given in Reading Passage 1?

In boxes 1 – 4 on your answer sheet write

YES	*if the statement agrees with the writer*
NO	*if the statement contradicts the writer*
NOT GIVEN	*if there is no information about this in the passage.*

1 The Russian Middle Ages lasted longer than its Western counterpart.

2 The Mongols introduced the idea of a kremlin into Russian cities.

3 The Red Square is so called because of the ash and residue from a 1493 fire.

4 The means used for heating wooden buildings were often the cause of outbreaks of fire.

Questions 5 – 8

*Using **NO MORE THAN THREE WORDS** from the passage, answer the following questions.*

5 A birch-bark document was rarely found in ________ conditions.

6 Last summer was the ________ anniversary since the first finding of birch-bark letters.

7 Birch-bark letters have been found spanning ________ years.

8 An ________ has been discovered which is the oldest one ever found.

Questions 9 – 13

Complete the summary below.

*Choose **NO MORE THAN THREE WORDS** from the passage for each answer.*

Novgorod citizens were all extremely __**9**__ as the extensive birch-bark letters proved. The Book of Psalms, written on beeswax plates called ceras was dated from __**10**__ and found in the city of Novgorod. It was written by a __**11**__ who used a __**12**__ to write with and it was intended for use as a textbook. A total of __**13**__ ceras were found yet only one had writing on.

READING PASSAGE 2

*You should spend about 20 minutes on **Questions 14 – 26** which are based on Reading Passage 2 below.*

Questions 14 – 18

Choose the most suitable headings for paragraphs A – E from the list of headings below.

Write appropriate numbers (i – x) in boxes 14 – 18 on your answer sheet.

***NB** There are more headings than paragraphs, so you will not use them all.*

List of Headings

i	Metro Gains and Losses
ii	Cars Change the Environment
iii	Healthy Transport
iv	Deadly Cities
v	A Robust Transportation
vi	Practical and unpractical
vii	Diversified vs. Single
viii	Cars up, people down
ix	Cost of Congestion
x	More Roads?

14 Paragraph A

15 Paragraph B

16 Paragraph C

17 Paragraph D

18 Paragraph E

Transportation Shapes Cities

A. Just as a human body relies on its network of vessels to circulate blood to its organs, a city depends on its transportation system to move people and goods to jobs, schools, and stores. Researchers Peter Newman and Jeff Kenworthy have examined transportation trends between 1970 and 1990 in 47 major metropolitan areas to reveal differences in the "health" of urban transportation in Asia, Australia, Europe, and North America.

B. One measure of a robust transportation system is the diversity of travel modes. U.S. cities are dominated by a single mode: the private car. On average, each person in the U.S. cities sampled in 1990 logged 10,870 kilometres (6,750 miles) of city driving more than a round trip across North America. Growth in car use in the U.S. cities between 1980 and 1990 was 2,000 kilometres per person, nearly double the increase in the Canadian cities, which have the next highest driving level. In industrial countries, urban car use has tended to rise as population density has declined. U.S. cities have led the trend toward dispersed, low-density development. Between 1983 and 1990, the average roundtrip commute to work in the United States grew 25 percent, to 17 kilometres (11 miles). As cities sprawl, cars become essential while transit, bicycling, and walking become less practical. Compact Asian and European cities thus have the highest levels of non-motorized transport.

C. As car use rises, car-related problems mount. Fatal crashes, for example, increase. The exception is cities in developing countries, where low car use is offset by poor signals and safety regulations. Nonetheless, highly car-reliant U.S. cities exceed even developing Asian cities in per capita traffic fatalities. Worldwide, traffic accidents kill some 885,000 people each year — equivalent to 10 fatal jumbo jet crashes per day — and injure many times more.

D. Car-choked cities also lose time and money in traffic jams. Wasted fuel and lost productivity cost $74 billion annually in U.S. metro areas. But new roads attract more cars, so regions that have invested heavily in road construction have fared no better at easing congestion than those that have invested less.

E. Building more roads also worsens environmental damage. Cars burn more fossil fuels per person than any other type of urban transport. Toxic ingredients in car fumes — carbon monoxide, sulfur dioxide, nitrogen oxides, fine particles, and sometimes lead — are a major source of urban air pollution. Nitrogen and sulfur that travel beyond the city acidify lakes, forests, and farms, while carbon contributes to global climate change. And cars devour not just energy, but land. Each car needs as much road as 4–8 bicycles and as much parking as 20 bikes. Roads and parking may pave over as much as one third of

car-reliant cities. A city's water quality and quantity suffer in proportion to the amount of paved roads and parking that cover its watershed.

F. A recent World Bank study suggests that the high costs of automobile dependence outweigh the benefits of car transportation, eroding economic development in the United States, a 1998 survey of leading real estate investors and analysts came to a similar conclusion: denser cities that boast alternatives to the car are better investment bets than sprawling suburban agglomerations.

G. Coordinated transportation and land use policies, both local and national, can lessen the need for travel and boost transportation options. In the Netherlands, for instance, cities follow a national "ABC" policy to steer new development to easily accessible W' locations, which are the best served by public transit and bicycle paths.

H. Local and national governments can also adjust road and parking fees to reflect the high cost of car use and limit unnecessary trips. For more than 20 years, downtownbound drivers in Singapore have paid a fee that rises during rush hours; since 1998, the fee has been automatically deducted from an electronic card. In the United States, state and national policies are beginning to target parking subsidies, worth $31.5 billion a year. A 1992 California law requires employers who offer free parking to also provide a cash alternative; this spurred a 17-percent drop in solo driving at several firms. In 1998, a national transportation act changed the tax code to support these "cash-outs".

I. Decoupling car ownership from car use removes incentives to drive. Once a person pays for a car, he may want to use it as much as possible to get his money's worth. New car-sharing networks eliminate that desire by providing easy access to a car, without the costs of owning or the hassles of renting. More than 100,000 people participate in car sharing in Germany, Austria, Switzerland, and the Netherlands. Italy is set to join the club in 1999 with national incentives for cities to organize electric car-sharing services.

J. Such innovations are becoming more important as we approach the point, sometime during the next decade, when more than half the world will live in urban areas. Nearly 90 percent of the 2.7 billion people due to be added to world population between 1995 and 2030 will live in cities of the developing world. Car-reliant U.S. cities have the greatest potential to diversify. At present, they offer a poor model for the many cities that will be building and expanding their transportation systems in the years to come.

— *Adapted from: wwwistp.murdoch.edu.au*

Questions 19 – 22

Do the following statements agree with the information given in Reading Passage 2?

In boxes 19 – 22 on your answer sheet write

YES	*if the statement agrees with the writer*
NO	*if the statement contradicts the writer*
NOT GIVEN	*if there is no information about this in the passage.*

19 The average person in the US drove 6,750 kilometres in 1990.

20 On average commuters lived 8 ½ kilometres from work in 1990.

21 You are more likely to have a fatal accident in a plane than in a car.

22 Houses in high density cities are more expensive than in low density suburban developments.

Questions 23 – 26

Complete the sentence below (Questions 23 – 26) with word taken from Reading Passage 2.

*Use **NO MORE THAN THREE WORDS** for each answer.*

Write your answers in boxes 23 – 26 on your answer sheet.

23 Car drivers in Singapore pay a rush fee when they are __________.

24 A consequence of the cash alternative to free parking in California was a reduction in __________.

25 Europeans are increasingly joining in car-sharing networks with Italians pioneering specifically in __________.

26 The majority of the future world population will be found in __________.

READING PASSAGE 3

You should spend about 20 minutes on ***Questions 27 – 40*** *which are based on Reading Passage 3 below.*

Waste Recycling





Public interest in recycling has increased dramatically over the last 15 years throughout the industrialized world. This interest has been driven by a variety of factors, including concerns about increasing waste generation and dwindling landfill capacity, air pollution from incineration, and a general appreciation of the need for environmental protection. In response, a wide array of policies, regulations and programmes have been implemented.

In some countries, comprehensive extended producer responsibility (EPR) frameworks have been introduced. EPR policies shift the responsibility for meeting government-specified recycling targets to the industries that produce the recyclables. Governments are also increasingly encouraging industries to adopt environmental management systems (EMSs). These holistically address waste generation through source reduction, reuse and recycling.

The US has taken a very different approach towards promoting recycling. While Germany's EPR policies are highly centralized, the US federal government has largely delegated the states to handle municipal waste management. Techniques used to leverage EPR at the local level include:

- **Networking with industry in a voluntary approach to promote EPR.** Example: The City of Seattle, King and Snohomish Counties in Washington, and Portland Metro (a regional government agency in Oregon) formed the Northwest Product Stewardship Council to integrate product stewardship into the policy and economic structures of the Pacific Northwest.
- **Passing local resolutions encouraging industry to take responsibility for their products and packaging.** Example: Los Angeles has passed resolutions calling on the plastics industry to use more post-consumer recycled content in its products.
- **Banning products that harm the environment and public health.** Example: Duluth, Minnesota, and the City and County of San Francisco have banned mercury thermometers.
- **Passing local deposit legislation for beverage containers.** Example: Columbia, Missouri, has the nation's first and only local bottle bill.
- **Taxing disposables.** Example: City of Seattle established a tax on non-reusable packaging and cutlery used at special events, restaurants, and institutions such as hospitals.
- **Developing purchasing protocols that encourage environmentally sound products and restricting contracts to these products.** Example: San Francisco passed a resolution restricting future contracts with beverage companies/vendors to those who provide containers with 10% recycled content by 2002.
- **Addressing EPR as part of solid waste management plans and policy development.** Example: The August 1998 City of Seattle new solid waste plan, On the Path to Sustainability, helped spur the creation of the Northwest Product Stewardship Council. The plan adopts zero waste as a guiding principle, and includes product stewardship as one of the programs for achieving future goals. Support for product stewardship in the solid waste plan allowed city staff to justify budget expenditures on work toward this goal.

In Germany, recycling has been driven by public support for sustainable development and by concerns about diminishing landfill capacity. In response, the German government was among the first to institute a comprehensive national framework to promote recycling. This framework includes high national recycling targets for municipal waste, EPR policies on used packaging, a deposit system for beverage containers, and requirements for the commercial sector to source-separate recyclables. Perhaps the most notable component of the German system is the EPR scheme for used household packaging, which was first introduced in the 1991 German Packaging Ordinance.

In Germany's EPR system, the packaging industry is responsible for ensuring that government-specified recycling rates for used household packaging are met. Recycling targets are 60% for aluminium, plastics and composites, 70% for paper and cardboard, 70% for steel, and 75% for glass. Retailers and packaging companies are required to accept and recycle used packaging from consumers. As an alternative, companies can contract with a third party to collect packaging from households and ensure that government-specified recycling targets are met.

Most of the German packaging industry has adopted this alternative approach. The resulting Green Dot system has become a model for subsequent EPR programmes in Europe and elsewhere. Green Dot member companies pay per-package, materialspecific fees to the Duales System Deutschland (DSD). The DSD uses proceeds from the fees to fund household collection and sorting, as well as to contract with end-users to accept and recycle specific quantities.

While the UK has adopted EPR, it has taken an unusual approach. The country's packaging industry is responsible for demonstrating that recycling targets have been met through the purchase of tradable packaging recovery notes (PRNs). These notes, which are created when specific quantities of materials are recycled, are purchased by brokers and are then sold to individual companies or to industry compliance programmes. Since PRNs are not specific to a particular location, reprocessors tend to recycle the materials that can be collected and reprocessed at the lowest cost, leading to a system that theoretically is very cost-effective.

Japan, like the other Asian countries is densely populated and has limited landfill capacity. As a result, the country has relied on incineration as its predominant means of waste disposal: nearly 70% of Japan's MSW is incinerated. In the 1990s, concerns arose about emissions from incineration. In response, the Japanese government adopted a comprehensive policy framework to increase recycling. Components of this framework include:

- a 50% reduction target in landfilling rates from 1996 to 2010
- material-specific recycling targets for packaging materials
- locally enforced source-separation mandates
- a requirement for municipalities to operate recycling programmes
- federal government subsidies to support recycling programmes
- EPR laws for packaging and electronics
- national green procurement regulations
- government financing of pilot programmes and research and development.

Many of these policies came into place after 2000. Their effects are just beginning to appear in the recycling statistics available.

Given the differences from one country to another, it is not possible to specify a blanket set of policies that are best for all. Instead what is best for any particular country, region or locality depends on what is practical, affordable, as well as politically and socially acceptable.

— *Adapted from: www.earthscan.co.uk*

Questions 27 – 31

Match the following initials to statements made about them

A EPR

B EMS

C DSD

D PRN

E MSW

27 most waste is burnt

28 involves household collections

29 involves industry packaging

30 involves a holistic approach to waste reduction

31 very cost-effective

Questions 32 – 40

Do the following statements agree with the information given in Reading Passage 3?

In boxes 32 – 40 on your answer sheet write

TRUE *if the statement is true*

FALSE *if the statement is false*

NOT GIVEN *if the information is not given in the passage.*

32 Under EPR policies it is now the responsibility of the end user to recycle waste.

33 In contrast to Germany, US federal states are responsible for waste management.

34 Two American cities have banned the use of mercury thermometers.

35 Seattle requires its local restaurants to pay a tax on non-reusable knives and forks.

36 One American city has stopped buying from drinks companies whose products do not include recycled content.

37 It was public demand that led to Germany instituting national laws to govern recycling.

38 German packaging has a Green Dot on all its recyclable packaging.

39 Only British company can buy packaging recovery notes.

40 Japan's waste emissions have fallen since the year 2000.

Glossary

TEST 1

IMPROVING READING SPEED

maintain [men'tein] *v.* 维持，维修
comprehension [ˌkɔmpri'henʃən] *n.* 理解，领悟
average ['ævəridʒ] *adj.* 一般的，平均的
fiction ['fikʃən] *n.* 虚构，小说
involved in （与…）关系密切的
willingness ['wiliŋnes] *n.* 自动自发，积极肯干
motivation [ˌməuti'veiʃən] *n.* 动机
presuppose [ˌpriːsə'pəuz] *v.* 预示
vocabulary [və'kæbjuləri] *n.* 词汇，词汇量
advance [əd'vɑːns] *v.* 前进
in earnest 认真地
essential [i'senʃ(ə)l] *adj.* 必需的，基本的
relation [ri'leiʃən] *n.* 关系，联系
parallel ['pærəlel] *v.* 相应，平行
considerably [kən'sidərəbəli] *adv.* 相当大地，相当多地
perceptual [pə'septjuəl] *adj.* 知觉（力）的，感性的
recognition [ˌrekəg'niʃən] *n.* 认识，识别
vocalization [ˌvəukəlai'zeiʃən; -li'z-] *n.* 发声法
faulty ['fɔːlti] *adj.* 有缺点的，不完善的
inaccuracy [in'ækjurəsi] *n.* 误差，不精确，不准确，错误
regularity [ˌregju'læriti] *n.* 规律性，规则性，整齐，匀称
regression [ri'greʃ(ə)n] *n.* 退回，退化，退步
habitual [hə'bitjuəl] *adj.* 习惯性的，经常的
associate with 同…联系在一起
concentration [kɔnsən'treiʃ(ə)n] *n.* 专心，集中（注意力）
due to 因为，由…引起，由于
schedule ['ʃedjuːl; (*US*) 'skedʒul] *n.* 时间表，进度表，程序表
eliminate [i'limineit] *v.* 除去，排删，消
acceleration [ækˌselə'reiʃən] *n.* 加速，促进，加快
severe [si'viə(r)] *adj.* 严厉的，苛刻的，严格的
confidence ['kɔnfidəns] *n.* 信心
improvement [im'pruːvmənt] *n.* 改进，进步
pronouncing [prəu'naunsiŋ] *adj.* 发音的，表示发音的
whisper ['wispə(r)] *v.* 低声说
regress ['riːgres] *n.* 回/复归，退回，倒退
phrase [freiz] *n.* 词组，短语，片语
snail [sneil] *n.* 蜗牛
frequently ['friːkwəntli] *adv.* 常常，频繁地
wander ['wɔndə] *v.* 徘徊，迷失方向，离题
inability [inə'biliti] *n.* 无能，无力
at a glance 看一眼，马上
inevitable [in'evitəbl] *adj.* 不可避免的，必然的
indiscriminately [ˌindis'kriminitli] *adv.* 不加区别地，不分青红皂白地
adjust [ə'dʒʌst] *v.* 调整，调节，使适合，使适应
thoroughly ['θʌrəli] *adv.* 十分地，彻底地
variation [vεəri'eiʃ(ə)n] *n.* 变化，变动
analogy [ə'nælədʒi] *n.* 类似，相似，模拟，类比，类推
straight [streit] *adj.* 直的
inflexible [in'fleksəbl] *adj.* 固定的，不可变更的
sensitivity ['sensi'tiviti] *n.* 敏感，灵敏（度），灵敏性
given ['giv(ə)n] *adj.* 特定的，指定的

Evolution of Insect Flight

pterosaur ['terəsɔː(r)] *n.* 翼龙
stepwise ['stepˌwaiz] *adj.* 逐步的，逐渐的
obscure [əb'skjuə] *adj.* 难懂的，模糊的
hypothesize [hai'pɔθisaiz] *v.* 假设，假定
stonefly [stəunˌflai] *n.* 石蝇
ancestral [æn'sestr(ə)l] *adj.* 祖先的，祖传的
biology [bai'ɔlədʒi] *n.* 生物学

immature [imə'tjuə(r)] *adj.* 未成熟的，发育未完全的
nymph [nimf] *n.* [动]（某些昆虫的）蛹
delicacy ['delikəsi] *n.* （复数-cies）佳肴，珍食
trout [traut] *n.* [鱼] 鲑，鲑鱼
skim [skim] *v.* （从表面）轻轻掠过，轻擦而过
mosquito [mə'ski:təu] *n.* 蚊子
waterproof ['wɔ:təpru:f] *adj.* 防水的，不透水的
meniscus [mi'niskəs] *n.* 新月，半月板
hasten ['heis(ə)n] *v.* 催促，促进，加速
feeble ['fi:b(ə)l] *adj.* 无力的，虚弱的，衰弱的
flap [flæp] *v.* 拍动，拍打，鼓翼而飞
vigorously ['vigərəsli] *adv.* 精神旺盛地
aerodynamic [,εərəudai'næmik] *adj.* 空气动力学的
thrust [θrʌst] *n.* 冲，刺，猛推
scoot [sku:t] *v.* 疾走，奔驰，迅速跑开
ambient ['æmbiənt] *adj.* 周围的，环绕的
voluntarily ['vɔləntərili] *adv.* 自愿地，自发地，志愿地
horizontal [,hɔri'zɔntl] *adj.* 地平线的，水平的
specimen ['spesimən] *n.* 范例，样本，标本
faltering ['fɔ:ltəriŋ] *adj.* 犹豫的，支吾的，蹒跚的
approximate [ə'prɔksimeit] *v.* （常与to连用）近似，相近，接近
hamper ['hæmpə(r)] *v.* 妨碍，阻碍
gigantic [dʒai'gæntik] *adj.* 巨大的，庞大的
sediment ['sedimənt] *n.* 沉淀物，沉渣，沉积物
strata ['streitə] *n.* （stratum 的复数）【地】地层，岩层
thoracic [θɔ(:)'ræsik] *adj.* 【解】胸的
cuticle ['kju:tik(ə)l] *n.* 硬表皮，外皮
fuse together 结合一起，合并
rigidity [ri'dʒiditi] *n.* 坚硬，稳固，硬度
attachment [ə'tætʃmənt] *n.* 附着，附属物，附件，固定物，系着物
progressive [prə'gresiv] *adj.* 逐步前进的
primitive ['primitiv] *adj.* 原始的，远古的，粗糙的，简单的
digressive [dai'gresiv] *adj.* 离题的，枝节的
stubby ['stʌbi] *adj.* 矮壮的，短而粗硬的
air cushion 气垫
eliminate [i'limineit] *v.* 排除，消除，除去
drag [dræg] *n.* 拖，曳，被拖曳物，阻碍物，空气阻力
friction ['frikʃ(ə)n] *n.* 摩擦力
ecological [,ekə'lɔdʒikəl] *adj.* 生态学的，社会生态学的
niche [nitʃ] *n.* 小生境
entomologist [entəu'mɔlədʒist] *n.* 昆虫学者
morphology [mɔ:'fɔlədʒi] *n.* 【生】形态学

Maternal Education and Child Mortality

carry out 完成，实现，贯彻，执行
mortality [mɔ:'tæliti] *n.* 死亡人数，死亡率
survey [sə:'vei] *n.* 调查，概观
determinant [di'tə:minənt] *adj.* 决定性的
maternal [mə'tə:nl] *adj.* 母亲的，似母亲的，母性的
hence [hens] *adv.* 因此，从此
account for 导致，引起，构成决定性的或主要的因素
variable ['vεəriəbl] *n.* 可变的事物，易变的事物
socio-economic conditions 和社会、经济因素都有关的问题
a dearth [də:θ] of 缺乏
mechanism ['mekəniz(ə)m] *n.* 结构，机构，机制
conscious ['kɔnʃəs] *adj.* 有意识的，了解的，察觉的
hygiene ['haidʒi:n] *n.* 卫生，卫生学
preventive [pri'ventiv] *adj.* 预防的，阻止的
curative ['kjuərətiv] *adj.* 治疗的，有疗效的
overcome [əuvə'kʌm] *v.* 击败，战胜，压倒，制服，克服
barrier ['bæriə(r)] *n.* 障碍
illiterate [i'litərət] *adj.* 不识字的，文盲的
rebuff [ri'bʌf] *v.* 断然拒绝，回绝
exposure [ik'spəuʒə(r)] *n.* （与to连用）暴露
mass media 大众传播媒体，大众传媒
empower [im'pauə] *v.* 授权予，使能够
implement ['implimənt] *v.* 实现，履行
regarding [ri'gɑ:diŋ] *prep.* 关于
diversified [dai'və:sifaid] *adj.* 多变化的，各种的
significantly [sig'nifikəntli] *adv.* 意味深长地，值得注目地

morbidity [mɔːˈbiditi] *n.* 病态，不健全，发病率
effectiveness [iˈfektivnis] *n.* 有效，效力
substitute [ˈsʌbstitjuːt] *n.* 代用品，代替者，替代品
germ [dʒəːm] *n.* 病菌，细菌，微生物
symptom [ˈsimptəm] *n.* 【医】【植】症状，征兆
equip [iˈkwip] *v.* 装备，配备
beneficial [beniˈfiʃ(ə)l] *adj.* 有益的，有用的
pregnancy [ˈpregnənsi] *n.* 怀孕，怀孕期
primary school 小学
substantial [səbˈstænʃ(ə)l] *adj.* 充实的，丰富的，实质上的，大体上的
diarrhea [ˌdaiəˈriə] *n.* 痢疾，腹泻
appreciable [əˈpriːʃiəbl] *adj.* 可感知的，可评估的
protection [prəˈtekʃ(ə)n] *n.* 保护
index [ˈindeks] *n.* 索引，率【数学】指数，指标
look for 寻找，搜索
curricula [kəˈrikjulə] *n.* 课程
dropout [ˈdrɔpˌəut] *n.* 退学学生，中途退学，辍学学生
convenient [kənˈviːnjənt] *adj.* 便利的，方便的
donor country 捐赠国，援助国

TEST 2

Hyperactivity of Children

impulsive [imˈpʌlsiv] *adj.* 易冲动的，感情用事的
distracted [disˈtræktid] *adj.* 分神的，心烦意乱的
constantly [ˈkɔnstəntli] *adv.* 经常地，不断地
bombard [bɔmˈbɑːd] *v.* 炮轰，轰击，质问
compete for 争夺
Ritalin [riˈtælin;rai-] *n.* （亦作r-）【药】盐酸哌醋甲酯，利他林（中枢兴奋药）（商标名）
stimulant [ˈstimjulənt] *n.* 刺激物，兴奋剂
jitters [ˈdʒitəs] *n.* 神经过敏
strategy [ˈstrætidʒi] *n.* 策略，计谋，智谋，手腕
biofeedback [ˈbaiəuˌfiːdbæk] *n.* 机能反馈疗法（利用机械医疗作用，使病人自动控制和调整正常机能的医疗技术），生物反馈，生物回授
tune in 调谐，调入
settle down 认真工作，全身心地做事

concentrate [ˈkɔnsentreit] *v.* 集中，使…集中于一点
involuntary [inˈvɔləntəri] *adj.* 自然而然的，无意的，不知不觉的，偶然的，不随意的
scalp [skælp] *n.* 头皮
modulate [ˈmɔdjuleit] *v.* 调整，调节，(信号)调制
beta [ˈbiːtə; ˈbeitə] *n.* 贝它，希腊字母表中的第二个字母
theta [ˈθiːtə] *n.* 太塔，希腊字母表中的第八个字母
automatic [ˌɔːtəˈmætik] *adj.* 自动的，无意识的，机械的
sociability [ˌsəuʃəˈbiliti] *n.* 爱(会)交际，讨人欢喜，和气，社交性格（心理，倾向，气氛），交际活动
mainstream [ˈmeinstriːm] *n.* 主流
therapy [ˈθerəpi] *n.* 疗法，治疗
session [ˈseʃ(ə)n] *n.* （从事某一活动的）一段时间
apparent [əˈpærənt] *adj.* 明显的，显而易见的，明白的
range [reindʒ] *v.* 在…范围内变动，在某一特定的范围内变化
option [ˈɔpʃən] *n.* 选项，选择权，选择，供选择的事物
prolonged [prəˈlɔŋd] *adj.* 延长的，拖延的
concentration [ˌkɔnsenˈtreiʃən] *n.* 集中，集合，专心
came up with 提出，想出
engaging [inˈgeidʒiŋ] *adj.* 有吸引力的，动人的，有魅力的
approach [əˈprəutʃ] *n.* 方法，步骤，途径
simulator [ˈsimjuleitə] *n.* 模拟器，模仿者
cockpit [ˈkɔkpit] *n.* 飞机座舱
routine [ruːˈtiːn] *adj.* 例行的，常规的
pilot [ˈpailət] *n.* 飞行员，飞机驾驶员
autopilot [ˈɔːtəpailət] *n.* 自动驾驶仪
manual [ˈmænjuəl] *n.* 手工操作的装置
display [diˈsplei] *n.* 显示，显示器
ratio [ˈreiʃiəu] *n.* 比，比率
steering [ˈstiəriŋ] *n.* 掌舵，驾驶，操纵，驾驶装置
impulsiveness [imˈpʌlsivnis] *n.* 易冲动
helmet [ˈhelmit] *n.* 头盔，钢盔
sensor [ˈsensə(r)] *n.* 传感器，灵敏元件

clinical ['klinik(ə)l] *adj.* 临床的；临诊的
psychology [sai'kɔlədʒi] *n.* 心理学，心理状态
reserved [ri'zə:vd] *adj.* 保留的
complementary [kɔmplə'mentəri] *adj.* 互补的；互相补足的，补充的，补足的
adjunct ['ædʒʌŋkt] *n.* 附属物，配件，助手，副手
dose [dəus] *n.* 一次服的药量；剂量
clinician [kli'niʃən] *n.* 【医】临床医生
nutrition [nju:'triʃ(ə)n; (*US*) nu:-] *n.* 营养，营养的供给
medium ['mi:djəm] *n.* 媒体，方法，媒介

Skyscraper

skyscraper ['skaiskreipə(r)] *n.* 摩天大厦
nautical ['nɔ:tik(ə)l] *adj.* 海员的；船舶的；航海的
mast [mɑ:st] *n.* 桅，桅杆
habitable ['hæbitəb(ə)l] *adj.* 适于居住的，可居住的
high-rise *n.* 高楼，大厦
specifically [spi'sifikəli] *adv.* 特定地，明确地；清楚地
construct [kən'strʌkt] *v.* 建造；构筑
skeleton ['skelit(ə)n] *n.* 骨架；基干；轮廓
originate [ə'ridʒineit] *v.* 使产生；创始；创办；发明
rare [rεə(r)] *adj.* 罕见的；珍奇的
mechanical [mi'kænikl] *adj.* 机械的；自动的；与机械有关的
structural ['strʌktʃərəl] *adj.* 结构的，建筑的
contribute [kən'tribju:t] *v.* （常与to连用）捐献；贡献
perfection [pə'fekʃ(ə)n] *n.* 完美；圆满；无缺
masonry ['meisnri] *n.* 砖石建筑，石造建筑
usurp [ju(:)'zə:p] *v.* 侵占
disproportionate [disprə'pɔ:ʃənət] *adj.* 不相称的；不成比例的；不匀称的
cast [kɑ:st] *n.* 石膏（模子），铸件；铸型
conjunction [kən'dʒʌŋkʃən] *n.* 连合，连接，联合
embody [im'bɔdi] *v.* 具体表达，使具体化
subsequent ['sʌbsikwənt] *adj.* 随后的，后来的；继起的
erection [i'rekʃən] *n.* 建筑物
riveted [rivitid] *adj.* 用铆钉钉牢的
bear [bεə(r)] *v.* 负荷，负重
exterior [eks'tiəriə] *adj.* 外部的，表面的
air conditioning 空气调节
fireplace ['faiəpleis] *n.* 壁炉
radiator ['reidieitə(r)] *n.* 暖气管，散热器
furnace ['fə:nis] *n.* 熔炉，高炉
ventilation duct 通风管道
provision [prə'viʒ(ə)n] *n.* 规定，条款
devise [di'vaiz] *v.* 设计；计划；发明
aesthetically [i:s'θetikli] *adv.* 审美地，美学观点上地
hazard ['hæzəd] *n.* 危险；冒险；公害
adequate ['ædikwit] *adj.* 适当的，足够的
determined [di'tə:mind] *adj.* 确定的；决定的
stepped [stept] *adj.* 有阶梯的，成梯状的
profile ['prəufail] *n.* 外形，轮廓
integrate ['intigreit] *v.* 使成整体，使一体化
hygiene ['haidʒi:n] *n.* 卫生，卫生学
plaza ['plɑ:zə] *n.* 广场，露天汽车停车场，购物中心
incorporate ['inkɔpərit] *v.* （使）合并，并入，合编
expanse [iks'pæns] *n.* 宽阔的区域，扩张，宽阔
postmodern mode 后现代主义风格
client ['klaiənt] *n.* 顾客，客户
prestige [pres'ti:ʒ; -'ti:dʒ] *n.* 声望，威望，威信
redefine [ri:di'fain] *v.* 重新解释，重新定义
advancement [əd'vɑ:nsmənt] *n.* 前进，进步
antenna [æn'tenə] *n.* 天线

The Gray Worker

linear ['liniə] *adj.* 线的，直线的，线状的
intersperse [intə(:)'spə:s] *v.* 散布，点缀
seasonal ['si:zənl] *adj.* 季节的，季节性的，周期性的
occasional [ə'keiʒən(ə)l] *adj.* 偶然的，非经常的，临时的
birthrate ['bə:θreit] *n.* 出生率
skilled [skild] *adj.* 有技能的，有技巧的，熟练的
knowledgeable ['nɔlidʒəbl] *adj.* 知识渊博的，有见识的

drain [drein] *n.* （精力，时间，金钱的）消耗；（财富等的）不断外流，逐渐流光
productivity [prɔdʌk'tiviti] *n.* 生产力；生产率
previous ['pri:vjəs] *adj.* 在前的，早先的
evident ['evidənt] *adj.* 明显的，显然的
incentive [in'sentiv] *n.* 刺激，鼓励，动机
expertise [ˌekspə'ti:z] *n.* 专门技能，专门知识
inflation [in'fleiʃ(ə)n] *n.* 通货膨胀，物价上涨
pension ['penʃən] *n.* 养老金，退休金
propel [prə'pel] *v.* 推进，驱使
reenter [ˌri:'entə(r)] *v.* 再次进来，再次进入
permanent ['pə:mənənt] *adj.* 永久的，持久的
alternate [ɔ:l'tə:nit] *v.* 交替，轮流，改变
disengagement ['disin'geidʒmənt] *n.* 解开，脱离
occupational [ɔkju'peiʃən(ə)l] *adj.* 职业的，工作的
initial [i'niʃ(ə)l] *adj.* 开始的，最初的
reveal [ri'vi:l] *v.* 展现，显示，揭示，暴露
spouse [spauz] *n.* 配偶（指夫或妻）
fulfill [ful'fil] *v.* 履行，实现，完成（计划等）
structure ['strʌktʃə] *v.* 组织，安排
interpersonal [intə'pə:sən(ə)l] *adj.* 人与人之间的
cognitively ['kɔgnitivli] *adv.* 认识地，认知地
engaged [in'geidʒd] *adj.* 忙碌的
peak [pi:k] *adj.* 最高的
efficiency [i'fiʃənsi] *n.* 效率，功效
summarize ['sʌməraiz] *v.* 概述，总结
output ['autput] *n.* 产量，输出，输出量
consistent [kən'sistənt] *adj.* 一致的，调和的，坚固的
slight [slait] *adj.* 轻微的，微小的
negative ['negətiv] *adj.* 否定的，消极的，负的
clerical ['klerik(ə)l] *adj.* 文书的，书记的
craft [krɑ:ft] *n.* 工艺，手艺
anticipated [æn'tisipeitid] *adj.* 预先的，预期的
entrant ['entrənt] *n.* 进入者，新到者，新工作者
assess [ə'ses] *v.* 估计，估算
allocate ['æləukeit] *v.* 分派，分配
reengineer [ˌri:endʒi'niə(r)] *v.* 再设计，重新建造，再设法处理
contingent [kən'tindʒənt] *adj.* 可能发生的，附随的，暂时的
static ['stætik] *adj.* 呆板的，乏味的
segment ['segmənt] *n.* 部分，片段，节
sensitivity ['sensi'tiviti] *n.* 敏感，灵敏（度），灵敏性
counseling ['kaunsəliŋ] *n.* （对个人，社会以及心理等问题的）咨询服务
retraining [ri:'treiniŋ] *n.* 再训练
transition [træn'siʃ(ə)n; trɑ:-] *n.* 转变，变化，过渡，变迁
recruit [ri'kru:t] *v.* 使恢复，补充，征募
retain [ri'tein] *v.* 保持，保留

TEST 3

Interpretation

interpretation [inˌtə:pri'teiʃən] *n.* 口译
translation [træns'leiʃən] *n.* 翻译
misunderstanding [misʌndə'stændiŋ] *n.* 误会，误解
laypeople [lei,pi:pəl] *n.* 外行，非专业人员
available [ə'veiləb(ə)l] *adj.* 可得到的，可利用的
convert [kən'və:t] *v.* 转换，变换
target ['tɑ:git] *n.* 目标，对象
oral ['ɔ:rəl] *adj.* 口头的，口语的
incidentally [insi'dentəli] *adv.* 附带地，顺便地
facilitate [fə'siliteit] *v.* 使容易，使不费力，帮助，促进
subtle distinction 微妙的差别
odds [ɔdz] *n.* 可能性，可能的机会
identical [ai'dentik(ə)l] *adj.* 同一的，同样的
superior [sju:'piəriə] *adj.* 较高的，上好的，出众的
dimension [di'menʃən] *n.* 尺寸，尺度
on the spot 马上，立刻，当场，在现场
negotiation [nigəuʃi'eiʃ(ə)n] *n.* 谈判，协商，商谈
seminar ['seminɑ:] *n.* 研究会，讨论发表会
simultaneous [ˌsiməl'teinjəs] *adj.* 同时的，同时发生的
consecutive [kən'sekjutiv] *adj.* 连续的，连贯的
rhythm ['riðəm; 'riθəm] *n.* 节奏，韵律
concurrent [kən'kʌrənt] *adj.* 并发的，协作的，一致的

overlapping ['əuvə'læpiŋ] *n.* 重叠，搭接
dominant ['dɔminənt] *adj.* 占优势的，支配的
whisper ['wispə(r)] *v.* 低声说；耳语
microphone ['maikrəfəun] *n.* 扩音器，麦克风
running ['rʌniŋ] *adj.* 流动的，连续的
rendition [ren'diʃən] *n.* 翻译
courtroom ['kɔ:tru:m] *n.* 法庭，审判室
counsel ['kaunsəl] *n.* 辩护律师
accuracy ['ækjurəsi] *n.* 准确性；精确性
regardless [ri'gɑ:dlis] *adj.* （与of连用）不管…的；不顾…的
concentration [kɔnsən'treiʃ(ə)n] *n.* 专心，集中（注意力）
mental ['ment(ə)l] *adj.* 心理的；智力的
flexibility [ˌfleksə'biliti] *n.* 机动性，适应性，灵活性
neurological [njuərəu'lɔdʒikəl] *adj.* 神经学上的
conversion [kən'və:ʃ(ə)n] *n.* 转变，变换
intimacy ['intiməsi] *n.* 亲密，隐私
collusion [kə'lu:ʒ(ə)n] *n.* 共谋，勾结，串通
transparency [træns'pεərənsi] *n.* 透明，透明度
proceeding [prə'si:diŋ] *n.* （pl）事件，事项
call for 要求
nuance [nju:'ɑ:ns; -'ɔ:ns] *n.* 细微差别
preference ['prefərəns] *n.* 偏爱，优先选择
quarters ['kwɔ:təs] *n.* 住处，岗位
taxing ['tæksiŋ] *adj.* 繁重的，费力的
impartial [im'pɑ:ʃəl] *adj.* 公平的，不偏不倚的
neurosurgeon [ˌnjuərəu'sə:dʒən] *n.* 神经外科医生
rotation [rəu'teiʃən] *n.* 循环，交替
trial ['traiəl] *n.* 审讯，审判
unobstructed ['ʌnəb'strʌktid] *adj.* 无阻的，不受阻拦的
audibility [ˌɔ:di'biliti] *n.* 听得见，能听度
distraction [di'strækʃ(ə)n] *n.* 分心；注意力转移；精力不集中

Animal Consciousness

lurk [lə:k] *v.* 潜藏、潜伏、埋伏
suffice [sə'fais] *v.* 足够、充足，满足要求
stack [stæk] *v.* 堆积
blank [blæŋk] *adj.* 空白的、空着的
inheritance [in'heritəns] *n.* 遗传、遗产、继承

recurrent [ri'kʌrənt] *adj.* 反复出现的
speciesism ['spi:ʃizizəm] *n.* 物种歧视（指人类对某些动物种的歧视或对各种动物种的苛待）
heap [hi:p] *n.* 一堆、一个放在另一个的上边
dualism ['dju:alizəm] *n.* 二元论
markedly ['ma:ktli] *adv.* 显著地、明显地
superior [sju:'piəriə] *adj.* 胜过…的、超越…的
evolutionary [ˌi:və'lu:ʃənəri] *adj.* 进化的
notion ['nəuʃən] *n.* 观念、想法
experimentation [eksˌperimen'teiʃən] *n.* 试验（法）
primate ['praimit] *n.* 灵长类动物
cognition [kɔg'niʃən] *n.* 认知、认识
cognitive ['kɔgnitiv] *adj.* 认知的、认识的
conception [kən'sepʃən] *n.* 观念、概念
proprioception [ˌprəupriə'sepʃən] *n.* 【生理】本体感受
flexible ['fleksəbl] *adj.* 灵活的、可变通的
responsivity [ˌrispɔn'siviti] *n.* 响应率、敏感度
stimuli ['stimjulai] *n.* （单词 stimulus 的复数形式），刺激（物），促进因素
arbitrary ['a:bitrəri] *adj.* 专断的、专制的；个人武断的、随心所欲的
disregard ['disri'ga:d] *v.* 忽视、不理会
embody [im'bɔdi] *v.* 使具有躯体、使具体化
sensory ['sensəri] *adj.* 感觉的、感官的
stir [stə:] *v.* 鼓动、激起对…的强烈感情
stillness ['stilnis] *n.* 静止、沉静
akin to 同类的、近似的
parsimony ['pa:siməni] *n.* 俭省、极度节俭
phylogenetic [ˌfailəudʒi'netik] *adj.* 种系发生的、系统发育的

Map and Atlas

paleolithic [ˌpæliəu'liθik] *adj.* 旧石器时代的
scratch [skrætʃ] *v.* 划
surviving [sə'vaiviŋ] *adj.* 继续存在的
archeological [a:ki'ɔlədʒikəl] *adj.* 考古学的
Anatolia [ˌænə'təuljə] *n.* 安纳托利亚（亚洲西部半岛小亚细亚的旧称）
Turkey ['tə:ki] *n.* 土耳其
radiocarbon [ˌrediəu'ka:bən] *n.* 放射性碳，碳的一

种放射性同位素，尤指碳14
classical ['klæsikəl] *adj.* 古典的，传统的，古希腊（古罗马）的，经典的
clay [klei] *n.* 黏土，泥土
tablet ['tæblit] *n.* 碑，牌匾，小块
Mesopotamia [ˌmesəupə'teimjə;-miə] *n.* 美索不达米亚（西南亚地区）
bronze [brɔnz] *n.* 青铜，青铜器
Sparta ['spɑːtə] *n.* 斯巴达（古希腊军事重镇）
circa ['səːkə] *prep.* 大约
papyrus [pə'paiərəs] *n.* 【植】纸草，草制成之纸
celebrated ['selibreitid] *adj.* 著名的
Vienna [vi'enə] *n.* 维也纳（奥地利首都）
manuscript ['mænjuskript] *adj.* 手抄的，手写的
cosmic ['kɔzmik] *adj.* 宇宙的；广大无边的
inspiration [inspi'reiʃ(ə)n] *n.* 感召，启示，灵感
movable type 活版印刷术
Gutenberg ['guːtnbəːg] 古腾堡（Johannes, 1400–1468，德国活版印刷发明人）
extensive [iks'tensiv] *adj.* 广泛的
geography [dʒi'ɔgrəfi; 'dʒiɔg-] *n.* 地理学，地理
rediscovery [ri'disˌkʌvəri] *n.* 再发现，重新发现
Ptolemy ['tɔlimi] 托勒密（公元2世纪的古希腊天文学家、地理学家、数学家，地心说的创立者）
coordinate [kəu'ɔːdineit] *v.* （使）互相配合（使）协调，调整
Alexandria [ˌælig'zɑːndriə] *n.* 亚历山大大帝
Byzantine Empire 拜占廷帝国，东罗马帝国
refugee [ˌrefju(ː)'dʒiː] *n.* 难民，流亡者
possession [pə'zeʃ(ə)n] *n.* 拥有，所有，（私人）财产
prominence ['prɔminəns] *n.* 著名，杰出，显著，重要
essential [i'senʃəl] *adj.* 重要的，主要的，根本的
atlas ['ætləs] *n.* 地图，地图集
format ['fɔːmæt; -mɑːt] *n.* 开本，版式，形式，格式
best-seller *n.* 畅销书，畅销货
chart [tʃɑːt] *n.* 图，图表，示意图，航线图，海图图表
engrave [in'greiv] *v.* 刻上，雕上
artistic [ɑː'tistik] *adj.* 艺术的，有美感的，精美的
scholarly ['skɔləli] *adj.* 学者气质的，学者风度的
temperament ['tempərəmənt] *n.* 气质，性情，性格
definitive [di'finitiv] *adj.* 最后的，确定的，权威性的
heir [ɛə] *n.* 继承人，后嗣
extraordinary [iks'trɔːdnri; iks'trɔːdinəri] *adj.* 别的，非凡的，突出的，奇特的
approximately [əprɔksi'mətli] *adv.* 近似地，大约
volume ['vɔljuːm; (*US*) -jəm] *n.* 卷，册
lavish ['læviʃ] *adj.* 过分丰富的，浪费的，奢侈的
sumptuous ['sʌmptjuəs] *adj.* 奢侈的，华丽的
binding ['baindiŋ] *n.* 装订
personage ['pəːsənidʒ] *n.* 人，名流
graphics ['græfiks] *n.* （作单数用）制图法，制图学

TEST 4

Orientation of Birds

orientation [ˌɔ(ː)rien'teiʃən] *n.* 取向，辨向作用，方向
migratory ['maigrətəri] *adj.* 迁移的，迁徙的，移栖的
cue [kjuː] *n.* 暗示，提示
particular [pə'tikjulə] *adj.* 特别的，独特的，详细的，精确的
landmark ['lændmɑːk] *n.* （树木、建筑等）明显的目标，地界标
magnetic [mæg'netik] *adj.* 磁的，有磁性的
flux [flʌks] *n.* 【物】流量，通量，电通量，磁通量
longitudinally [lɔndʒi'tjuːdinəli] *adv.* 经度地，经线地
celestial [si'lestiəl] *adj.* 天的，天空的，天体的
sphere [sfiə(r)] *n.* 球，球形，球状天体
arch over 拱悬于…之上，把…拱盖起来
prevailing wind 【气】主风，盛行风
odor ['əudə(r)] *n.* 气味
crane [krein] *n.* 鹤
swan [swɔn] *n.* 天鹅
geese [giːs] *n.* 鹅肉，雌鹅
subject to 常遭…，易受…的侵袭，受控制，服

从…的指挥
crosswind ['krɔswind] n. 横风，侧风
jut [dʒʌt] v.（使）突出，（使）伸出，突击
meccas ['mekə] n. 众人渴望去的地方
peninsula [pi'ninsjulə] n. 半岛
Appalachians [ˌæpə'leitʃənz] n. 阿巴拉契亚山脉（北美洲）
topographic [ˌtɔpə'græfik] adj. 地志的，地形学上的
starling ['sta:liŋ] n. 八哥
azimuth ['æziməθ] n. 方位，方位角
corresponding [ˌkɔris'pɔndiŋ] adj. 相当的，对应的，适合的，一致的
traverse ['trævə(:)s] v. 横过，穿过，经过，在…来回移动
appropriate [ə'prəupraɪt] adj. 适合的，适当的，相称的
melatonin [ˌmelə'təunin] n.【生化】褪黑激素，N-乙酰-5-甲氧基色胺
secretion [si'kri:ʃ(ə)n] n.（动植物的）分泌，分泌液
pineal ['piniəl] adj.【解】（脑部的）松果腺的，松果体的
gland [glænd] n.【解】腺
penguin ['peŋgwin] n. 企鹅
waterfowl ['wɔ:təˌfaul] n. 水鸟，水禽
perch [pə:tʃ] v.（鸟）栖息，栖止
nocturnal [nɔk'tə:n(ə)l] adj. 夜晚的，夜间发生的，夜间活动的
penetration [peni'treiʃ(ə)n] n. 刺穿，穿透，渗透
artificial [ɑ:ti'fiʃ(ə)l] adj. 人造的，人工的
planetarium [plæni'tɛəriəm] n. 行星仪，天文馆
analogous [ə'næləgəs] adj. 相似的，类似的
Polaris [pəu'lɛəris] n.【天】北极星
Betelgeuse ['betəlˌdʒə:z] n. 猎户星座中的一等星
Orion [ə'raiən] n.【天】猎户座
overcast ['əuvəkɑ:st] adj. 多云的，阴暗的
steppe [step] n. 干草原，疏树大平原
lodestone ['ləudstəun] n. 天然磁石
devoid [di'vɔid] adj. 全无的，缺乏的
sensory ['sensəri] adj. 感觉的，与感觉有关的，感觉器官的
receptor [ri'septə] n. 接受器，感受器
augmented [ɔ:'gmentid] adj. 增音的，扩张的
gust [gʌst] n. 阵风，一阵狂风（或雨、火、烟、雹、声音等）
ruffle ['rʌfl] v.（鸟受惊时等）竖起羽毛
olfactory [ɔl'fæktəri] adj. 嗅觉的
loft [lɔft] n. 阁楼
intact [in'tækt] adj. 完整的，未动过的

Development of Mathematics

mensuration [ˌmensjuə'reiʃən] n. 测量（术）
tortoise shell 龟甲
oracle bone【考古】甲骨（中国商朝用来刻写占卜文字的龟甲兽骨）
mythological [ˌmiθə'lɔdʒikəl] adj. 神话（学）的
even number 偶数
odd number 奇数
presume [pri'zju:m] v. 当作、姑且认为
originator [ə'ridʒəneitə] n. 发明者、创作者
c. 300 B. C. 这里“300”前的“c”表示“circa”——“大约”的意思。
deductive [di'dʌktiv] adj. 推论的
inscribe [in'skraib] v. 使内切、画（一图形）于另一图形内并使内侧图形的每一顶点都与外侧图形相接
circumscribe ['sə:kəmskraib] v. 画外接圆、使外切
polygon ['pɔligən] n. 多边形、多角形
solid ['sɔlid] n. 立方体、三维几何体
revolution [ˌrevə'lu:ʃən] n. 旋转、绕转
geometrical optics 几何光学
decimal ['desiməl] adj. 十进制的、以十为基础的
logarithm ['lɔgəriθm] n.【数】对数
probability [ˌprɔbə'biliti] n. 概率、或然性
calculus ['kælkjuləs] n. 微积分学
vice versa 反之亦然
indispensable [ˌindis'pensəbl] adj. 不可缺少的、绝对必要的
supersede [ˌsju:pə'si:d] v. 代替、取代
tangent ['tændʒənt] n.【数】切线、正切
formulation [ˌfɔ:mju'leiʃən] n. 公式化、列方程式；系统而确切地陈述
terrestrial [ti'restriəl] adj. 陆地的

celestial [si'lestjəl] *adj.* 天体的、天上的
descriptive geometry 画法几何
differential geometry 微分几何
projective geometry 投影几何学
analysis situs 【数】拓扑学
topology [tə'pɔlədʒi] *n.* 拓扑学
anticipate [æn'tisipeit] *v.* 预期、预见
exposition [ˌekspə'ziʃən] *n.* 说明、阐明
complex number 复数
complex variable 复变数
rigorous ['rigərəs] *adj.* 严格的、严密的、精确的、一丝不苟的
generalization [ˌdʒenərəlai'zeiʃən] *n.* 一般化、普遍化
axiomatics [ˌæksiə'mætiks] *n.* 公理体系、公理系统
axiom ['æksiəm] *n.* 公理
discard [dis'kɑːd] *v.* 丢弃、抛弃
impetus ['impitəs] *n.* 推动力、冲力、刺激
algorithm ['ælgəriðəm] *n.* 【数】运算法则
differential equation 微分方程（式）

African Transportation

Africa ['æfrikə] *n.* 非洲
Sahara [sə'hɑːrə] *n.* 撒哈拉沙漠（非洲北部大沙漠）
the majority of 多数，大半
telling ['teliŋ] *adj.* 有效的，明显的，生动的
overlook ['əuvəluk] *v.* 没注意到，忽视
access ['ækses] *n.* 通路，入门
healthcare ['helθkɛə] 保健
destination [desti'neiʃ(ə)n] *n.* 目的地，终点
firewood ['faiəwud] *n.* 木柴，柴火
Kindia ['kindiə] 金迪亚（几内亚西部城市）
Guinea ['gini] *n.* 几内亚
produce [prə'djuːs] *n.* 产物，农产品
overcrowded [ˌəuvə'kraudid] *adj.* 过度拥挤的
colonial [kə'ləunjəl] *adj.* 殖民的，殖民地的
vehicle ['viːikl] *n.* 交通工具，车辆
obtain [əb'tein] *v.* 获得，得到
footbridge ['futbridʒ] *n.* 人行桥
Tanzania [ˌtænzə'niːə] *n.* 【国名】坦桑尼亚（东非国家）
Zambia ['zæmbiə] *n.* 【国名】赞比亚（位于非洲）
Masai [mɑː'sai] *n.* 马赛人（肯尼亚和坦桑尼亚的游牧狩猎民族）
nomadic [nəu'mædik] *adj.* 游牧的
livestock ['laivstɔk] *n.* 家畜，牲畜
Dakar ['dækə] *n.* 达喀尔（塞内加尔首都）
Senegal [ˌseni'gɔːl] *n.* 【国名】塞内加尔（西非国家）
lane [lein] *n.* （乡间）小路，巷，里弄，狭窄的通道
tarmac ['tɑːmæk] *n.* 蘸有柏油的碎石
Gambia ['gæmbiə] *n.* 冈比亚（非洲西部沿海一殖民地，1965年独立，首都Bathurst）
moped ['məuped] *n.* 机动脚踏两用车
overnight ['əuvə'nait] *adv.* 突然在或好似在一夜间，一下子；突然
relative ['relətiv] *adj.* 相对的，比较的
prototype ['prəutətaip] *n.* 原型
alternative [ɔː'ltəːnətiv] *n.* 二中择一，可供选择的办法（事物）
revert [ri'vəːt] *vi.* （与to连用）恢复原状
bush [buʃ] *n.* 灌木，矮树
maintenance ['meintinəns] *n.* 维护，保持
Malawi [mɑː'lɑːwi] *n.* 马拉维（非洲国家）
innovative ['inəuveitiv] *adj.* 创新的
approach [ə'prəutʃ] *n.* 方法，步骤，途径，通路
rigorous ['rigərəs] *adj.* 严格的，严厉的
coordinator [kəu'ɔːdineitə] *n.* 协调者
middlemen ['mid(ə)lmæn] *n.* 中间人
harsh [hɑːʃ] *adj.* 残酷的，无情的
hard [hɑːd] *adj.* 苛刻的
retail price 零售价
integrated ['intigreitid] *adj.* 完整的，完全的，综合的
creditor ['kreditə(r)] *n.* 债主，债权人
infrastructure ['infrəstrʌktʃə(r)] *n.* 基本设施
catering ['keitəriŋ] *n.* 公共饮食业，给养
modest ['mɔdist] *adj.* 适度的，适中的

TEST 5

Aswan High Dam

Sudan [suː'dæn] *n.* 苏丹
Aswan High Dam 阿斯旺水坝
rockfill ['rɔkfil] *n.* 废石充填，填石
capture ['kæptʃə] *v.* 俘获，捕获
Nile [nail] *n.* 尼罗河（非洲东北部河流）
reservoir ['rezəvwɑː] *n.* 水库，蓄水池
Lake Nasser 纳赛尔湖
Arabic ['ærəbik] *n.* 阿拉伯语
tributarie ['tribjutəri] *n.* 支流
Ethiopian Highlands 埃塞俄比亚高原
converge [kən'vəːdʒ] *v.* 聚合，集中于一点
Khartoum 喀土木（苏丹首都）
deposit [di'pɔzit] *v.* 沉淀，淤积
sediment ['sedimənt] *n.* 沉淀物，沉渣，沉积物，冲积物
insufficient [ˌinsə'fiʃənt] *adj.* 不足的，不够的
subsequently ['sʌbsikwəntli] *adv.* 后来，随后
peak [piːk] *vi.* 到达最高点
interim ['intərim] *adj.* 临时的
the World Bank 世界银行
add up to 总计为，总数达
initially [i'niʃəli] *adv.* 最初，开头
withdraw [wið'drɔː] *v.* 收回，撤消
speculate ['spekjuˌleit] *v.* 推测，思索
due to 因为；由…引起；由于
israeli [iz'reili] *n.* 以色列人，犹太人
invade [in'veid] *v.* 侵略，侵袭
Suez Canal 苏伊士运河
adviser [æd'vaizə] *n.* 顾问
enhance [in'hɑːns] *v.* 提高，增强
nubian ['njuːbiən] *n.* 努比亚人
equivalent [i'kwivələnt] *n.* 相等物，等价物，等量物
artifact ['ɑːtifækt] *n.* 史前古器物
acre-foot *n.* 英亩–英尺（灌溉的水量单位，一英亩英尺的水量可使一英亩的土地水深一英尺，即43560立方英尺）
cubic metres 立方米
distribution [distri'bjuːʃ(ə)n] *n.* 分布，散布
floodplain ['flʌdplein] *n.* 泛滥平原，涝原，漫滩
navigation [ˌnævi'geiʃən] *n.* 导航，领航，航行
seepage ['siːpidʒ] *n.* 渗流，渗出的量
evaporation [ˌivæpə'reiʃ(ə)n] *n.* 蒸发，蒸发作用
account for 解释；说明
downstream ['daunstriːm] *adv.* 向河口去，顺流而下
delta ['deltə] *n.* 三角州
agglomeration [əˌglɔmə'reiʃən] *n.* 凝聚，团矿；结块，团聚作用，烧结作用，加热粘结
erosion [i'rəuʒən] *n.* 腐蚀，侵蚀，冲蚀
Mediterranean Sea 地中海
drainage ['dreinidʒ] *n.* 排水，排水装置，排水区域
saturation [ˌsætʃə'reiʃən] *n.* 饱和（状态），浸透，饱和度
salinity [sə'liniti] *n.* 盐分，盐浓度，咸度，含盐量
parasitic [ˌpærə'sitik] *adj.* 寄生的
schistosomiasis [ˌʃistəsəu'maiəsis] *n.* 血吸虫病
stagnant ['stægnənt] *adj.* 停滞的，迟钝的
lifeline ['laiflain] *n.* 救生索，生命线

Koala

koala [kəu'ɑːlə] *n.* （=koala bear，coala）（澳大利亚产）树袋熊，袋鼠熊，考拉
stuff [stʌf] *v.* 填充，塞
extinct [ik'stiŋkt] *adj.* 已绝种的，已灭绝的
kangaroo [ˌkæŋgə'ruː] *n.* 【动】袋鼠
marsupial [mɑː'suːpiəl] *adj.* 有袋动物的
pouch [pautʃ] *n.* 小袋，育儿袋
related [ri'leitid] *adj.* 相关的，有关系的
chiefly ['tʃiːfli] *adv.* 首要，主要地
Queensland ['kwiːnzlənd] 昆士兰州（澳大利亚州名）
endearing [in'diəriŋ] *adj.* 惹人喜爱的
appearance [ə'piərəns] *n.* 外貌，外观
covering ['kʌvəriŋ] *n.* 遮盖物
curve [kəːv] *v.* 弯，使弯曲
nocturnal [nɔk'təːn(ə)l] *adj.* 夜晚的，夜间发生的，夜间活动的
mammal ['mæməl] *n.* 哺乳动物
ringtail ['riŋteil] *n.* 【动】浣熊

possum ['pɔsəm] *n.* 【动】负鼠
eucalyptus [ˌjuːkə'liptəs] *n.* 【植】桉树
fibrous ['faibrəs] *adj.* 含纤维的，纤维性的
extremely [iks'triːmli] *adv.* 极端地，非常地
adaptation [ˌædæp'teiʃən] *n.* 【生】适应性的改变；感官适应性调节
metabolic [ˌmetə'bɔlik] *adj.* 代谢作用的，新陈代谢的
digestive [di'dʒestiv] *adj.* 消化的；助消化的
relatively ['relətivli] *adv.* 相对地，比较地
extract [iks'trækt] *v.* 提炼出，分离出，榨出
conserve [kən'səːv] *v.* 保存，保藏
inflame [in'fleim] *v.* 燃烧
lizard ['lizəd] *n.* 【动】蜥蜴
habitat ['hæbitæt] *n.* （动、植物的）产地，栖息地
defense [di'fens] *n.* 防御物，防御设施
cub [kʌb] *n.* 幼兽
millimetre ['milimiːtə(r)] *n.* 毫米
agreeable weather 宜人的天气
onward ['ɔnwəd] *adj.* 向前的
familial [fə'miljəl] *adj.* 家族的，家庭的
squeak [skwiːk] *n.* 尖叫声，吱吱声
twilight ['twailait] *n.* 黎明
deplete [di'pliːt] *v.* 耗尽，使衰竭
susceptible [sə'septib(ə)l] *adj.* （与to连用）易受影响的
logger ['lɔgə(r)] *n.* 伐木工
pharmacist ['fɑːməsist] *n.* 制药者，药商，药剂师
venereal [vi'niəriəl] *adj.* 性交的，性病的
deformity [di'fɔːmiti] *n.* 残缺，畸形，残废，畸形的人或物
demand [di'mɑːnd] *n.* 要求，请求
clearance ['kliərəns] *n.* 清除
chlamydia [klə'midiə] *n.* 【微】衣原体
transmit [trænz'mit; trɑː-] *v.* 传播，传递，传染
effective [i'fektiv] *adj.* 有效的，被实施的
slightly ['slaitli] *adv.* 轻微地，有一点，略
curb [kəːb] *v.* 控制，抑制，约束

Economizing of the Poor

economize [i(ː)'kɔnəmaiz] *v.* 节约（费用）

aisle [ail] *n.* 走廊、过道、狭长过道
tradeoff ['treidɔf] *n.* 折衷、权衡
preference ['prefərəns] *n.* 偏爱
constraint [kən'streint] *n.* 约束、限制
cereal ['siəriəl] *n.* 谷类（食品）
poultry ['pəultri] *n.* 家禽
substitutable ['sʌbstitjuːtəbl] *adj.* 可代替的、可替换的
discount ['diskaunt] *n.* 折扣
empirical [im'pirikəl] *adj.* 依据经验的、以经验为根据的
review [ri'vjuː] *v.* 对…进行评论、回顾、写评论文章
as opposed to 与…相反
aggregation [ˌægri'geiʃən] *n.* 聚合、集合
shed light on 使某事清楚明白地显示出来
per capita *adj.* 人均的
promotion [prə'məuʃən] *n.* （商品等的）宣传、推销
coupon ['kuːpɔn] *n.* 附在商品上的赠券、礼券
generic [dʒi'nerik] *adj.* 普通的、一般的
versus ['vəːsəs] *prep.* 与…相对、与…相比
evident ['evidənt] *adj.* 明显的、显然的
staple ['steipl] *n.* 主食、基本食品（如面粉、大米或谷物）

TEST 6

History of Timepiece

timepiece ['taimpiːs] *n.* 时钟，座钟
prehistoric ['priːhis'tɔrik] *adj.* 史前的
preoccupied [priː'ɔkjupaid] *adj.* 全神贯注的
ice age 冰河时期，冰期
scratch [skrætʃ] *v.* 划
gouge [gaudʒ] *v.* 挖出，掘出
phase [feiz] *n.* 【天】月相
Sumerian [suː'miəriən; -'mer-] *n.* 闪族人/语
Tigris ['taigris] *n.* 底格里斯河（西南亚，流经土尔其和伊拉克）
Euphrates [juː'freitiːz] *n.* 幼发拉底河（亚洲）
Iraq [i'rɑːk] *n.* 伊拉克

obelisk ['ɔbilisk] *n.* 【建】方尖石塔
slender ['slendə] *adj.* 纤细的，细长的，微小的
tapering ['teipəriŋ] *adj.* 尖端细的
sundial ['sʌndaiəl] *n.* （通过太阳知道时间的）日规，日晷
partition [pɑː'tiʃən] *v.* 分割；把…分成部分
subdivision ['sʌbdi,viʒən] *n.* 细分，再分；细分分成的部分
portable ['pɔːtəbl] *adj.* 轻便的，便携式的
sunlit ['sʌn,lit] *adj.* 被日光照射了的，阳光照射的
oriented ['ɔːrientid;'əu-] *adj.* 导向的
elevated ['eliveitid] *adj.* 高起的，抬高的
crossbar ['krɔsbɑː] *n.* 闩，横木
horizontal [hɔri'zɔnt(ə)l] *adj.* 水平的，横的
vertical ['vəːtikəl] *adj.* 垂直的，直立的
elaborate [i'læbərət] *adj.* 精致的，精巧的
hemispherical ['hemis,ferəkl] *adj.* 半球的，半球状的
dial ['dai(ə)l] *n.* 表盘；钟盘
bronze [brɔnz] *n.* 青铜
Vitruvius [vi'truːviːəs] 维特鲁威（罗马建筑师和作家，他的关于建筑是关于古代建筑理论的唯一流传下来的作品）
Asia Minor小亚细亚
celestial [si'lestiəl] *adj.* 天的，天空的，天体的
Pharaoh ['fɛərəu] *n.* 法老王（古埃及君主称号）
Amenhotep [,ɑːmən'həutep] 阿孟和蒂（公元前十六至十四世纪）
vessel ['ves(ə)l] *n.* 器皿，容器
sloping ['sləupiŋ] *adj.* 倾斜的，有坡度的
Middle Ages（前面与the连用）中世纪，中古时代
virtual ['vəːtjuəl] *adj.* 实际上的，事实上的
standstill ['stændstil] *n.* 静止状态，停顿
foliot ['fəuliət] *n.* 原始平衡摆（两端挂有可调荷重的水平杆，它与冕状轮擒纵机构配合，用于古代的计时机构中）
escapement [i'skeipmənt] *n.* （钟表的）司行轮，摆轮
reign [rein] *v.* 统治，支配，盛行
oscillation [,ɔsi'leiʃən] *n.* 摆动，振动
friction ['frikʃən] *n.* 摩擦，摩擦力
mainspring ['meinspriŋ] *n.* （钟表的）主发条
unwound ['ʌn'waund] *adj.* （钟，表等）没有上发条的
precursor [pri(ː)'kəːsə] *n.* 先驱
pendulum ['pendjuləm] *n.* 钟摆，摇锤
refinement [ri'fainmənt] *n.* 改进的地方/装置/设计
quartz [kwɔːts] *n.* 【矿】石英，水晶
property ['prɔpəti] *n.* 性质，特性
squeeze [skwiːz] *v.* 榨，挤，压
vibrate [vai'breit] *v.* （使）振动，（使）摇摆
gear [giə] *n.* 齿轮，传动装置
surpass [səː'pɑːs] *v.* 超越，胜过

Mobile in the Sky

in-flight ['in'flait] *adj.* 在飞行中的
bonus ['bəunəs] *n.* （购货时的）奉送品
downtime ['dauntaim] *n.* 停机时间，停工期
on board 在/到船、飞机或车上
cacophony [kæ'kɔfəni] *n.* 刺耳的音调，不协和音
lobby ['lɔbi] *n.* （游说议员的）游说团
momentum [məu'mentəm] *n.* 动力
consensus [kən'sensəs] *n.* 一致同意，多数人的意见，舆论
substantially [səb'stænʃ(ə)li] *adv.* 主要地，相当大地
designate ['dezigneit] *v.* 指出，标明，指明
disruption [dis'rʌpʃən] *n.* 中断，破坏
annoyance [ə'nɔiəns] *n.* 烦恼，可厌之事
bellow ['beləu] *v.* 咆哮地说出，大声地发出
IDC 【计】 智能磁盘控制器
in favour of 参加支持…的活动
irrespective [iri'spektiv] *adj.* （与of连用）不顾…的，不考虑…的，不论…的
adversely ['ædvəːsli] *adv.* 逆地，反对地
audio output 音频输出
headphones ['hedfəuns] *n.* 听筒，耳机
invoke [in'vəuk] *v.* 引起，产生
subcommittee ['sʌbkəmiti] *n.* 小组委员会，附属委员会
facilitate [fə'siliteit] *v.* （不以人作主语的）使容易，使便利，推动，帮助
terrorism ['terəriz(ə)m] *n.* 恐怖主义，恐怖统治，恐怖行动
remotely [ri'məutli] *adv.* 遥远地，偏僻地

presumably [pri'zju:məbəli] *adv.* 可能，大概，推测起来
facet ['fæsit] *n.* （事物的）方面
bandwidth ['bændwidθ] *n.* 【电信】带宽，频带宽度
Indian Ocean 印度洋
massive ['mæsiv] *adj.* 大规模的，大量的
avionics [ˌeivi'ɔniks] *n.* 航空电子工学，电子设备
install [in'stɔ:l] *v.* 安装，安置
excess [ik'ses;'ekses] *adj.* 过度的，额外的
utilise [ju:'tilaiz] *v.* 利用
step up 增加，尤指逐步增加
connexion [kə'nekʃən] *n.* 联系，连结
Lufthansa ['luftˌhænsə] *n.* （联邦德国）汉莎航空公司
airbus ['εəbʌs] *n.* "空中客车"，大型客机
consortium [kən'sɔ:tjəm] *n.* 社团，协会，联盟
BAA=British Airports Authority 英国机场管理局
FAA=Federal Aviation Administration 联邦航空管理局
telecom ['teləkɔm]=telecommunication 电信
licence ['laisəns] *n.* 执照，许可证，特许
interfere with 妨碍，干涉，干扰
terrestrial [ti'restriəl] *adj.* 陆地的
GSM 数字通（大哥大）
spectrum ['spektrəm] *n.* 光谱，频谱
inconsistency [ˌinkən'sistənsi] *n.* 矛盾
iron out 消除
shy away 避开，回避
intrusive [in'tru:siv] *adj.* 打扰的

Linguistic Ability of Children

linguistic [liŋ'gwistik] *adj.* 语言上的，语言学上的
reign [rein] *v.* 统治，支配，盛行，占优势
MRI 核磁共振成像
animation [æni'meiʃ(ə)n] *n.* 动画
UCLA abbr. University of California at Los Angeles （美国）加利福尼亚大学洛杉矶分校
region ['ri:dʒən] *n.* 【解】部位
function ['fʌŋkʃən] *n.* 官能，功能，作用
brush [brʌʃ] *v.* 刷
consciously ['kɔnʃəsli] *adv.* 有意识地，自觉地

capitalize ['kæpitəlaiz] *v.* 把…大写
automatic [ˌɔ:tə'mætik] *adj.* 无意识的，机械的
imprint [im'print] *v.* 留下烙印
wide [waid] *adj.* 宽的，广阔的
neurological [njuərəu'lɔdʒikəl] *adj.* 神经学上的
neurology [njuə'rɔlədʒi] *n.* 神经学，神经病学
acquisition [ˌækwi'ziʃən] *n.* 获得，获得物
versus ['və:səs] *prep.* 对…；与…相对
instruction [in'strʌkʃən] *n.* 指导，指令
valuable ['væljuəbl] *adj.* 贵重的，有价值的，颇有价值的
perspective [pə'spektiv] *n.* 观点，看法
physiological [ˌfiziə'lɔdʒikəl] *adj.* 生理学的，生理学上的
plausible ['plɔ:zib(ə)l] *adj.* 似乎合理的，似乎可能的
with respect to 关于
dogma ['dɔgmə] *n.* 教条
linguist ['liŋgwist] *n.* 语言学家
questionable ['kwestʃənəb(ə)l] *adj.* 可疑的
proficiency [prə'fiʃənsi] *n.* 熟练，精通，熟练程度
critical ['kritikəl] *adj.* 临界的
lateralization [ˌlætərəlai'zeiʃən;-li'z-] *n.* 【生理】（尤指脑部的）偏侧性
localize ['ləukəlaiz] *v.* （使）局部化，停留在一地方
toddler ['tɔdlə] *n.* 初学走路的孩子
precocious [pri'kəuʃəs] *adj.* 发育过早的，早熟的
focal ['fəuk(ə)l] *adj.* 焦点的，在焦点上的
activation [ˌækti'veiʃən] *n.* 活化，激活，【化】活化作用
convert [kən'və:t] *v.* 使转变，转换…
initial [i'niʃ(ə)l] *adj.* 开始的，最初的
bias ['baiəs] *n.* 【生】偏倚
full-fledged ['ful'fledʒd] *adj.* 有充分资格的，发育完全的
module ['mɔdju:l] *n.* 模块
interfere with 妨碍，干涉，干扰
plastic ['plæstik; plɑ:stik] *adj.* 【生】有适应能力的
reshape ['ri:'ʃeip] *v.* 改造，再成形
surgically ['sə:dʒikəlli] *adv.* 如外科手术般地
epilepsy ['epilepsi] *n.* 【医】癫痫症

virtually ['vəːtjuəli] *adv.* 事实上，实质上
catch up 加紧弥补
circuitry ['səːkitri] *n.* 电路，线路
cerebral ['seribrəl] *adj.* 脑的，大脑的
infant ['infənt] *n.* 婴儿，幼儿
be exposed to 暴露在…；招致…
permanently ['pəːmənəntli] *adv.* 永存地，不变地
receptive [ri'septiv] *adj.* 善于接受的，能接纳的
puberty ['pjuːbə(ː)ti] *n.* 青春期

TEST 7

History of Aviation

aviation [eivi'eiʃ(ə)n] *n.* 飞行，航空，航空工业
kite [kait] *n.* 风筝
ceremony ['seriməni] *n.* 典礼，仪式
forerunner ['fɔːˌrʌnə] *n.* 先驱（者），预兆
balloon [bə'luːn] *n.* 气球
glider ['glaidə] *n.* 滑行，滑行物，滑翔机
soar [sɔː(r)] *v.* 飞，翱翔
Leonardo da Vinci 达芬奇（意大利的著名美术家、雕塑家、建筑家、工程师和科学家，1452–1519）
conjure up 想象，推想
Wright brothers 赖特兄弟（Orville，1871–1948，及其兄Wilbur，1867–1912，美国飞机发明家）
craft [krɑːft] *n.* 航空器（指飞机、飞艇等）
airscrew ['ɛəskruː] *n.* （飞机的）螺旋桨
parachute ['pærəʃuːt] *n.* 降落伞
propeller [prə'pelə] *n.* 飞机上的螺旋推进器
tremendously [tri'mendəsli] *adv.* 可怕地，非常地
envision [in'viʒən] *v.* 想象，预想
helicopter ['helikɔptə] *n.* 直升（飞）机，直升机
ornithopter [ˌɔːni'θɔptə] *n.* 扑翼飞机
flap [flæp] *v.* 拍动，拍打
mimic ['mimik] *v.* 模仿
credible ['kredəbl; -ibl] *adj.* 可信的，可靠的
propel [prə'pel] *v.* 推进，驱使
predict [pri'dikt] *v.* 预知，预言，预报
application [æpli'keiʃ(ə)n] *n.* 应用
blade [bleid] *n.* 桨叶；（推进器的）翼
compressed air 压缩空气
motor ['məutə(r)] *n.* 发动机，马达
aerodrome ['ɛərədrəum] *n.* 飞机场，机场
horsepower ['hɔːsˌpauə] *n.* 马力
cylinder ['silində(r)] *n.* 圆筒，圆柱体，汽缸，气缸
radial ['reidjəl] *adj.* 放射状的，半径的
crash [kræʃ] *v.* 碰撞，坠落，坠毁
Potomac [pə'təumək] *n.* 波拖马可河（美国东部重要河流，流经首都华盛顿）
aerodynamics [ˌɛərəudai'næmiks] *n.* 空气动力学，气体力学
wingspan ['wiŋspæn] *n.* 【空】翼展
concussion [kən'kʌʃ(ə)n] *n.* 脑震荡
biplane ['baiplein] *n.* 双翼飞机，复翼飞机
monoplane ['mɔnəuplein] *n.* 单翼机
airmail ['ɛəmeil] *n.* 航空邮件
toss [tɔs] *v.* 投，掷
overboard ['əuvəbɔːd] *adv.* 自船上落下，在船外
transcontinental ['trænzkɔnti'nentəl] *adj.* 横贯大陆的
decisive [di'saisiv] *adj.* 决定性的
frontier ['frʌntiə(r)] *n.* 未开拓的领域
jet propulsio 喷气式发动机
pressurized ['preʃəraizd] *adj.* 加压的，受压的
turbojet ['təːbəudʒet] *n.* 涡轮喷气飞机
supersonically ['sjuːpə'sɔnikli] *adv.* 超音波地
transoceanic [ˌtrænzəuʃi'ænik] *adj.* 在海洋彼岸的，横越海洋的

Ant Intelligence

intelligence [in'telidʒəns] *n.* 智力，聪明，智能
behaviour [bi'heivjə] *n.* 行为，举止，习性
fascinate ['fæsineit] *v.* 使着迷，使神魂颠倒
colony ['kɔləni] *n.* （生物）群体
caste [kɑːst] *n.* 社会等级，社会地位
entomologist [entəu'mɔlədʒist] *n.* 昆虫学者
route [ruːt] *n.* 路线，路程
agenda [ə'dʒendə] *n.* 议程
supervision [ˌsjuːpə'viʒən] *n.* 监督，管理
interaction [ˌintər'ækʃən] *n.* 交互作用，交感
apparent [ə'pærənt] *adj.* 明显的，显而易见的
pheromone ['ferəməun] *n.* 【生化】信息素

deposit [di'pɔzit] v. 放下；置下
doubly ['dʌbli] adv. 二倍地，双重地，加倍地
simulation [,simju'leiʃən] n. 仿真，假装，模拟
decay [di'kei] v. 衰减，衰退
evaporate [i'væpəreit] v. （使）蒸发，消失
uncanny [ʌn'kæni] adj. 离奇的
reroute [ri'ru:t; -'raut] v. 变更旅程
formicidae ['fɔ:misaid] n. 蚁科
hymenoptera [,haimi'nɔptərə] n. 【昆虫】膜翅目昆虫
larva ['lɑ:və] n. 幼虫
pupa ['pju:pə] n. 【昆】蛹
afterwards ['ɑ:ftəwədz] adv. 然后，后来地
pass on 传递
via ['vaiə; 'vi:ə] prep. 经过，通过，经由
parasitic [,pærə'sitik] adj. 寄生的
inhabitant [in'hæbitənt] n. 居民，居住者
care for 照顾，照料，抚养
hatch [hætʃ] v. 孵化
hostage ['hɔstidʒ] n. 人质，抵押品
upkeep ['ʌpki:p] n. 保养，维护
chew [tʃu:] v. 咀嚼（食物等）
economy [i(:)'kɔnəmi] n. 系统，机体
vertebrate ['və:tibrit] n. 脊椎动物
invertebrate [in'və:tibrit] n. 无脊椎动物
timber ['timbə] n. 木材，木料
relentless [ri'lentlis] adj. 无情的
coordinate [kəu'ɔ:dinət] adj. 同等的，并列的
mutually ['mju:tʃuəli; -tjuəli] adv. 互相地，互助地
symbiotic [,simbai'ɔtik] adj. 【生】共生的
fungi ['fʌndʒai; 'fʌŋgai] n. 真菌类（包括霉菌，食用伞菌，酵母菌等）
mutualism ['mju:tjuəlizəm; 'mju:tʃuəlizəm] n. 互助论，互利共生
aphid ['eifid] n. 【动】蚜虫
lice [lais] n. 虱子，白虱
apparently [ə'pærəntli] adv. 显然地
ward off 挡开，避开
nourishment ['nʌriʃmənt] n. 食物，营养品
nymph [nimf] n. 【动】（某些昆虫的）蛹
mating ['meitiŋ] n. （鸟兽等的）交配，交尾
chauffeur ['ʃəufə] n. 〈法〉司机

History of American Immigration

immigration [,imi'greiʃən] n. 外来的移民
loosely ['lu:sli] adv. 宽松地，松散地
arctic ['ɑ:ktik] adj. 北极的，北极区的
western hemisphere n. 西半球
genetic [dʒi'netik] adj. 遗传的，发生的，起源的
previously ['pri:vju:sli] adv. 先前，以前
resemble [ri'zembl] v. 象，类似
prehistoric ['pri:his'tɔrik] adj. 史前的
Jomon ['dʒəumɔn] 〈日〉adj. 绳纹文化的（指日本新石器时代文化，因陶器上普遍饰有绳纹，故名）
Ainu ['ainu:] n. （日本）阿伊努人，阿伊努语
Hokkaido [hɔ'kaidəu] n. 北海道（位于日本北部一岛）
skull [skʌl] n. 头骨，颅骨，脑壳
facial ['feiʃəl] adj. 面部的
Bering Strait 白令海峡
Arizona [,æri'zəunə] n. 亚利桑那州（美国西南部的州）
New Mexico [nju: 'meksikəu] n. 美国新墨西哥州
Eskimo ['eskiməu] n. 爱斯基摩人
Aleut ['æliu:t] n. （爱斯基摩人中的）阿留申人
Navajo ['nævəhəu] n. 纳瓦霍人（美国最大的印第安部落）
anthropology [,ænθrə'pɔlədʒi] n. 人类学
contentious [kən'tenʃəs] adj. 争论的，有异议的
Mongolia [mɔŋ'gəuljə] n. 蒙古
dimension [di'menʃən] n. 维（数），度（数），元
arrowhead ['ærəuhed] n. 箭头，箭头状物
Chile ['tʃili] n. 智利（南美洲西南部的一个国家，首都是圣地亚哥Santiago）
excavate ['ekskəveit] v. 挖掘，开凿，挖出，挖空
skeleton ['skelit(ə)n] n. （人或动物的）骨骼
Caucasoid ['kɔ:kəsɔid] adj. 高加索人种的
influx ['inflʌks] n. 汇集，流入
mastodon ['mæstədɔn] n. 【古生物】乳齿象
Siberia [sai'biəriə] 西伯利亚（苏联一地区）
trek [trek] n. 艰苦跋涉
inhospitable [in'hɔspitəbl] adj. （地带，气候等）不适合居住的，（指地方）荒凉的

hybrid ['haibrid] *adj.* 混合的，杂种的
Spaniard ['spænjəd] *n.* 西班牙人
likelihood ['laiklihud] *n.* 可能，可能性
timing ['taimiŋ] *n.* 时间的选择，时机的选择
molecular [məu'lekjulə] *adj.* 【化】分子的，由分子组成的
Viking ['vaikiŋ] *n.* 维京人；（八到十世纪的）北欧海盗
Caribbean [kæri'bi(:)ən] *n.* 加勒比海
forcibly ['fɔ:səbəli] *adv.* 强行地
Pilgrim ['pilgrim] *n.* （1620年建立普利茅斯的）英国清教徒
Plymouth ['pliməθ] 普利茅斯（美国马萨诸塞州东南部港市）
Massachusetts [mæsə'tʃu:sit] *n.* 马萨诸塞，麻省（美国）
Swede [swi:d] *n.* 瑞典人
dissenter [di'sentə(r)] *n.* （不顺从国教的）新教徒
Delaware ['deləwɛə] *n.* （美国东部的）特拉华（州）
Netherlands ['neðələndz] *n.* 荷兰
Scandinavian [ˌskændi'neivjən] *adj.* （北欧一地区，包括挪威、瑞典、丹麦、冰岛的）斯堪的纳维亚的

TEST 8

Save Salmon

salmon ['sæmən] *n.* 【鱼】大麻哈鱼
basin ['beisn] *n.* 盆，盆地，水池
drain [drein] *v.* 排水；泄水；排泄
square mile （平）方里
extend [iks'tend] *v.* 扩充，延伸，伸展
reservoir ['rezəvwɑ:] *n.* 水库，蓄水池
hydroelectric ['haidrəi'lektrik] *adj.* 水力电气的
dam [dæm] *n.* 水坝，障碍
tributary ['tribjutəri; (*US*) -teri] *n.* 支流
federal ['fedərəl] *adj.* 联邦的
re-creation [rekri'eiʃ(ə)n] *n.* 再创造，再现
habitat ['hæbitæt] *n.* （动、植物的）产地，栖息地

coho ['kəuhəu] *n.* （=coho salmon）银大马哈鱼（原产于太平洋海域）
sockeye ['sɔkai] *n.* 【鱼】红大马哈鱼
pink [piŋk] *n.* 〈英〉幼小鲑鱼
steelhead ['sti:l'hed] *n.* 虹鳟
shad [ʃæd] *n.* 【鱼】西鲱，美洲西鲱
smelt [smelt] *n.* 【鱼】胡瓜鱼
lamprey ['læmpri] *n.* 【动】七鳃鳗
hatch [hætʃ] *v.* 孵，孵出
rear [riə] *v.* 培养，饲养
spawn [spɔ:n] *v.* 产卵
stock [stɔk] *n.* 贮存，储存；存货
mining ['mainiŋ] *n.* 采矿，矿业
logging ['lɔgiŋ] *n.* 伐木业
impact ['impækt] *n.* 影响，效果
impede [im'pi:d] *v.* 妨碍，阻止
juvenile ['dʒu:vinail] *n.* （鱼虾等）幼体
velocity [vi'lɔsiti] *n.* 速度，速率
predation [pri'deiʃən] *n.* 捕食其他动物的生存方法
downstream ['daunstri:m] *adv.* 下游地
adverse ['ædvə:s] *adj.* 不利的，相反的
predator ['predətə] *n.* 捕食行为，捕食习性
passage ['pæsidʒ] *n.* 通过，通道，通路
ladder ['lædə] *n.* 鱼梯（一种可使鱼一级级越过瀑布或堤坝的设施）
be integrated into 统一到/归并到/被结合到…中
steer [stiə] *v.* 驾驶，掌舵
turbine ['tə:bin; -bain] *n.* 涡轮
bypass ['baipɑ:s; (*US*) 'baipæs] *n.* 旁路，小道 *v.* 迂回，设旁路
spillway ['spilwei] *n.* 溢洪道，放水道
barge [bɑ:dʒ] *n.* 驳船，游艇
trash [træʃ] *n.* 垃圾，废料
sluiceway ['slu:sˌwei] *n.* 闸沟，人造水道
submerged [səb'mə:dʒd] *adj.* 在水中的，淹没的
orifice ['ɔrifis] *n.* 孔，口
percentage [pə'sentədʒ] *n.* 百分率，百分比
guidance ['gaidəns] *n.* 指导，指引
circulate ['sə:kjuleit] *v.* （使）流通，（使）运行，（使）循环
recirculation [ˌri:'sə:kju'leiʃən] *n.* 再通行，再流通
shut off 切断，中断（供水、供气），与…隔绝
intake ['inteik] *n.* 吸收之量

contamination [kənˌtæmiˈneiʃən] *n.* 玷污，污染，污染物
supersaturation [ˈsju:pəˌsætʃəˈreiʃən] *n.* 【化】过度饱和
tribal [ˈtraibəl] *adj.* 部落的，种族的
fishery [ˈfiʃəri] *n.* 渔业，水产业，渔场
augmented [ɔ:ˈgmentid] *adj.* 扩张的
aid [eid] *v.* 资助，援助，帮助

On the Wings of a Kite

pyramid [ˈpirəmid] *n.* （古埃及的）金字塔
obelisk [ˈɔbilisk] *n.* （埃及的）方尖塔/碑
erect [iˈrekt] *v.* 使直立
amateur [ˈæmətə(r)] *n.* 业余爱好者
enthusiast [inˈθju:ziæst] *n.* 热衷者
inroad [ˈinrəud] *n.* 进展
put forward 提出（意见、建议）
Egyptologist [i:dʒipˈtɔlədʒist] *n.* 埃及古物学者
adhere to 坚持，坚信，忠于
advantageous [ædvənˈteidʒəs] *adj.* 有利的，有益的
mechanism [ˈmekəniz(ə)m] *n.* 机械，机械装置
ramp [ræmp] *n.* 坡道，斜坡
as to 谈到，关于
sandpit [ˈsændpit] *n.* 沙坑
quarry [ˈkwɔri] *n.* 采石场
Aswan [æˈswa:n] *n.* 阿斯旺（埃及南部一城市）
granite [ˈgrænit] *n.* 花岗岩，花岗石
carve [kɑ:v] *v.* 雕刻，切开
Nile [nail] *n.* 尼罗河（非洲东北部河流）
Thebes [θi:bz] *n.* 【史】底比斯（古希腊Boeotia的主要城邦）
Luxor [ˈlʌkˌsɔ:r] *n.* 卢克斯特（埃及中部位于尼罗河东岸的一城市。与古城底比斯平行而建，内有阿孟特普三世在位时修建的卢克斯特神庙，拉米西斯二世在位时又进行了大规模扩建，他在这一建筑前为自己竖立了巨大塑像）
relatively [ˈrelətivli] *adv.* 相对地，比较地
ponder [ˈpɔndə(r)] *v.* 深思，仔细考虑
motivator [ˈməutiveitə(r)] *n.* 激起行为（或行动）的人（或事物）
artery [ˈɑ:təri] *n.* 动脉，要道
enterprise [ˈentəpraiz] *n.* （艰巨、复杂或冒险性的）工作，事业
inspiration [ˌinspəˈreiʃən] *n.* 灵感
vertical [ˈvə:tikəl] *adj.* 垂直的，直立的
pulley [ˈpuli] *n.* 滑车，滑轮
ingredient [inˈgri:diənt] *n.* 成分，因素
initially [iˈniʃəli] *adv.* 最初，开头
mimic [ˈmimik] *v.* 模仿，摹拟
hemp [hemp] *n.* 大麻，大麻纤维
nylon [ˈnailən] *n.* 尼龙
linen [ˈlinin] *adj.* 亚麻的
mph= miles per hour，*n.* 时速（每小时所行驶之英里数）
pendulum [ˈpendjuləm] *n.* 钟摆，摇锤
steady [ˈstedi] *adj.* 平稳的，稳定的
optimal [ˈɔptim(ə)l] *adj.* 最佳的，最适宜…的
criterion [kraiˈtiəriən] *n.* （批评判断的）标准，准据，规范
specifically [spiˈsifikəli] *adv.* 特定地，明确地
approximately [əprɔksiˈmətli] *adv.* 近似地，大约
plausible [ˈplɔ:zib(ə)l] *adj.* 似乎合理的，似乎可能的
ancillary [ænˈsiləri] *adj.* 辅助性的，支援性的
reusable [ri:ˈju:zəbl] *adj.* 可以再度使用的
archaeological [ˌɑ:kiəˈlɔdʒikəl] *adj.* 考古学的，考古学上的
trace [treis] *n.* 痕迹，遗迹，线索

A Weighty Issue

according to 按照，根据…所说
BMA abbr. British Medical Association，英国医师协会
adolescent [ˌædəuˈlesnt] *adj.* 青春期的，青春的
obesity [əuˈbisiti] *n.* 肥胖，肥大
along with 与…一道
excess [ikˈses;ˈekses] *adj.* 过度的，额外的
disorder [disˈɔ:də(r)] *n.* （身心机能的）失调，小病
staggering [ˈstægəriŋ] *adj.* 难以置信的，惊愕的
overweight [əuvəˈweit] *adj.* 过重的，超重的
obese [əuˈbi:s] *adj.* 肥胖的，肥大的
diabetes [ˌdaiəˈbi:ti:z;-ti:s] *n.* 【医】糖尿病，多

尿症
dietary ['daiətəri] *adj.* 饮食的
cancer ['kænsə] *n.* 癌，毒瘤
spokesperson ['spəukspə:sn] *n.* 发言人，代言人
complication [ˌkɔmpli'keiʃ(ə)n] *n.* 【医】并发症
pregnancy ['pregnənsi] *n.* 怀孕，怀孕期
detect [di'tekt] *v.* 发现，察觉，注意到
lifespan ['laifspæn] *n.* 寿命
psychological [ˌsaikə'lɔdʒikəl] *adj.* 心理（上）的
highlight ['hailait] *v.* 使显著，突出
significantly [sig'nifikəntli] *adv.* 重要地
well-being ['welbiiŋ] *n.* 康乐，安宁，福利
self-esteem ['selfis'ti:m] *n.* 自尊，自尊心
bully ['buli] *v.* 威吓，欺侮，以强凌弱
assess [ə'ses] *v.* 估定，评定
work out 设计出，作出，计算出，消耗完
kilogram ['kiləgræm] *n.* （=kilogramme）公斤，千克，（缩写为kg，公制中质量和重量的基本单位）
square [skwɛə] *v.* 自乘
chart [tʃɑ:t] *n.* 图表
sliding ['slaidiŋ] *adj.* 变化的
deposit [di'pɔzit] *v.* 贮存，沉淀
hip [hip] *n.* 臀
thigh [θai] *n.* 大腿，股
crucial ['kru:ʃ(ə)l] *adj.* 极重要的，有决定性的
burn off 渐渐烧完
in the case of 就…来说，关于
single ['siŋgl] *v.* （与out连用）挑选，挑出
paediatrics [ˌpi:di'ætriks] *n.* 【医】儿科学，小儿科
couch potato *n.* 终日懒散在家的人
sedentary ['sedəntəri] *adj.* 惯于久坐的
briskly [briskli] *adv.* 活泼地，精神勃勃地
reap [ri:p] *v.* 收获
hockey ['hɔki] *n.* 曲棍球
aerobics [ɛə'rəubiks] *n.* 增氧健身法
gym [dʒim] *n.* 体育馆
alternative [ɔ:l'tə:nətiv] *n.* 可供选择的办法或事物
martial art 武术
yoga ['jəugə] *n.* 瑜珈，瑜珈术
tai chi 太极
put off 延期，推迟

TEST 9

Dogs Detecting Drugs

detect [di'tekt] *v.* 侦查，探测
smuggle ['smʌgl] *v.* 走私
comparatively [kəm'pærətivli] *adv.* 比较地，相当地
confiscation ['kɔmfiskeitʃən] *n.* 没收
partly ['pɑ:tli] *adv.* 部分地
customs ['kʌstəms] *n.* 海关
hidden ['hidn] *adj.* 隐藏的
by means of 通过，用，借助于
intelligence [in'telidʒəns] *n.* 谍报，情报
investigation [inˌvesti'geiʃən] *n.* 调查，研究
chassis ['ʃæsi] *n.* 底盘，底架，底板/座
frame [freim] *n.* 【机】架，座身
tyre ['taiə] *n.* 轮胎
narcotic [nɑ:'kɔtik] *n.* 麻醉药，致幻毒品
detector [di'tektə(r)] *n.* 探测器
handler ['hændlə] *n.* （犬马等的）训练者
Sweden ['swi:dn] *n.* 瑞典
centralize ['sentrəlaiz] *v.* 集聚，集中
avalanche ['ævəˌlɑ:nʃ] *n.* 雪崩
commission [kə'miʃən] *v.* 委任，任命，委托
trial ['traiəl] *n.* 试验，考验
meagre ['mi:gə(r)] *adj.* 贫乏的，缺少的
shepherd ['ʃepəd] *n.* 牧羊狗
breed [bri:d] *n.* 品种，种类
Labrador ['læbrədɔ:] *n.* 拉布拉多猎狗
appropriate [ə'prəupriit] *adj.* 适当的
prejudice ['predʒudis] *n.* 偏见，成见
obedience [əu'bi:diəns] *n.* 服从，顺从
drill [dril] *n.* 操练，（反复）练习
trace [treis] *v.* 跟踪，追踪
milieu ['mi:ljə:] *n.* 周围，环境
cannabis ['kænəbis] *n.* 大麻
psychotropic [ˌsaikəu'trɔpik] *adj.* （药物）作用于精神的
simultaneously [siməl'teiniəsly; (*US*) saim-] *adv.* 同时地

connexion [kə'nekʃən] *n.* 联系，连结
talcum powder 滑石粉
lorry ['lɔri; (*US*) 'lɔ:ri] *n.* 卡车；载重汽车
warehouse ['wεəhaus] *n.* 仓库；货栈
accustom [ə'kʌstəm] *v.* （与to连用）使习惯于…
disturbing [di'stə:biŋ] *adj.* 烦扰的
odour ['əudə] *n.* 气味
prerequisite [pri:'rekwizit] *n.* 必须具备的先决条件
rational ['ræʃənl] *adj.* 理性的
ocular ['ɔkjulə(r)] *adj.* 眼睛的；视觉的
postal parcel 邮政包裹
monotonously [mə'nɔtənəsli] *adv.* 单调地，无变化地
disinterested [dis'intristid] *adj.* 公正无私的；无偏见的；客观的
diminish [di'miniʃ] *v.* （使）减少，（使）变小
interval ['intəvəl] *n.* 间隔，距离
emission [i'miʃ(ə)n] *n.* 发出物；发射物
repellant [ri'pelənt] *adj.* 令人反感的，厌恶的
conceal [kən'si:l] *vt.* 隐藏，隐蔽，隐瞒

Public Transportation Systems

originate [ə'ridʒineit] *v.* 起源，发生
horse-drawn *adj.* 马拉的（车）
erratic [i'rætik] *adj.* 无确定路线，不稳定的
hackney ['hækni] *n.* 乘用马；出租马
coach [kəutʃ] *n.* 四轮大马车
operational [ˌɔpə'reiʃənl] *adj.* 操作的，运作的
stagecoach ['steidʒkəutʃ] *n.* 公共马车
omnibus ['ɔmnibəs] *n.* 公共马车
wagon ['wægən] *n.* 四轮马车
efficiently [i'fiʃəntli] *adv.* 有效率地，有效地
enterprising ['entəpraiziŋ] *adj.* 有事业心的，有进取心的
streetcar ['stri:tkɑ:] *n.* （AmE.）有轨电车
friction ['frikʃən] *n.* 摩擦，摩擦力
considerably [kən'sidərəbəli] *adv.* 相当大地，相当多地
franchise ['fræntʃaiz] *v.* 赋予特权
propulsion [prə'pʌlʃ(ə)n] *n.* 推进，推进力
devise [di'vaiz] *v.* 设计，发明
cable ['keibl] *n.* 缆，索，钢丝绳
grip [grip] *v.* 抓紧，握紧
（be） subject to 易遭受
install [in'stɔ:l] *v.* 安装，安置
electric [i'lektrik] *adj.* 电的，电动的，电气
appeal [ə'pi:l] *n.* 魅力，吸引力，感染力
urban ['ə:bən] *adj.* 城市的，市内的
completion [kəm'pli:ʃ(ə)n] *n.* 完成
electrify [i'lektrifai] *v.* 使充电，使通电，使电气化
portion ['pɔ:ʃ(ə)n] *n.* 部分，一份
versatility [ˌvə:sə'tiləti] *n.* 多功能性
subway ['sʌbwei] *n.* 地下道，地道
transit ['trænsit] *n.* 搬运，运输
interurban [ˌintə(:)'ə:bən] *adj.* 城市之间的
nearby ['niəbai] *adj.* 附近的，邻近的
locomotive-powered *adj.* 机车牵引的
intercity [ˌintə'siti] *adj.* 城市间的
go bankrupt 破产
flexibility [ˌfleksə'biliti] *n.* 机动性，适应性，灵活性
peak [pi:k] *n.* 顶点，（记录的）最高峰
revitalize ['ri:'vaitəlaiz] *v.* 新生
gasoline ['gæsəli:n] *n.* 汽油
diesel-powered *adj.* 柴油驱动的
overhead ['əuvəhed] *adj.* 在头上的，高架的
Philadelphia [ˌfilə'delfjə] *n.* 费城（美国宾西法尼亚州东南部港市）
Pennsylvania [pensil'veinjə; -niə] *n.* 宾夕法尼亚州（美国州名）
Toronto [tə'rɔntəu] *n.* 多伦多（加拿大）
Ontario [ɔn'tεəriəu] *n.*安大略湖（北美洲中东部）
ridership ['raidəʃip] *n.* （总称）〈主美〉公共交通工具乘客（人数）
infusion [in'fju:ʒən] *n.* 注入，灌输
reverse [ri'və:s] *v.* 颠倒，倒转
shortage ['ʃɔ:tidʒ] *n.* 缺乏，匮乏
light-rail *n.* 轻轨

Latin Influence in English

Germanic [dʒə:'mænik] *adj.* 日耳曼语（系）的
Romance [rə'mæns] *adj.* 罗曼语的，拉丁系语言的
estimate ['estimeit] *n.* 估计
Anglo-Saxon ['æŋgləu'sæksən] *n.* 盎格鲁撒克逊人

borrowing ['bɔrəuiŋ] *n.* 借用的东西，借用的词
Latinate ['lætineit] *adj.* 从拉丁文衍生的，类似拉丁文的
Romanian [rəu'meiniən] *n.* 罗马尼亚语
Italian [i'tæljən] *n.* 意大利语
Portuguese [ˌpɔːtju'giːz] *n.* 葡萄牙语
Spanish ['spæniʃ] *n.* 西班牙语
Dark Ages *n.* 黑暗时代（欧洲史上约为公元476–1000年），欧洲中世纪
Frisian ['friziən] *n.* 弗里斯兰人，弗里斯兰群岛人
Jute [dʒuːt] *n.* （住在日德兰半岛的古代日耳曼部落的）朱特人
Christian ['kristjən] *adj.* 基督的；基督教的
missionary ['miʃənəri] *n.* 传教士
altar ['ɔːltə] *n.* 祭坛，（基督教教堂内的）圣坛，祈祷祭拜的地方
bishop ['biʃəp] *n.* 主教
monk [mʌŋk] *n.* 修道士，僧侣
nun [nʌn] *n.* 修女，尼姑
pope [puːp] *n.* 罗马教皇，主教
priest [priːst] *n.* （基督教的）牧师，神父
Norman Conquest *n.* 【史】诺曼底人（对英格兰）的军事征服
tier [tiə] *v.* 使成等级，使层叠
aristocracy [ˌæris'tɔkrəsi] *n.* 贵族，贵族政府，贵族统治
peasantry ['pezəntri] *n.* 农民（总称）
ascend [ə'send] *v.* 攀登，登上
suppress [sə'pres] *v.* 镇压，抑制，查禁
holding ['həuldiŋ] *n.* [pl.]所有物，所有权
wholly ['həulli] *adv.* 完全地
Middle English 中世纪英语，中古英语
roughly ['rʌfli] *adv.* 粗略地，约略地
ignore [ig'nɔː(r)] *v.* 不理睬，忽视
simplification [ˌsimplifi'keiʃən] *n.* 简化
proceed [prə'siːd] *v.* 进行，继续下去，发生
oversight ['əuvəsait] *n.* 监督，监视，看管
conjugation [kɔndʒu'geiʃ(ə)n] *n.* 动词变化，动词的各个变化形式
overall [əuvər'ɔːl] *adj.* 全部的，总的
inflection [in'flekʃ(ə)n] *n.* 词尾变化，词尾
singular ['siŋgjulə] *n.* 【语法】单数
plural ['pluərəl] *n.* 【语法】复数

Modern English 近代英语
barnyard ['bɑːnjɑːd] *n.* 畜棚场
swine [swain] *n.* 猪
poultry ['pəultri] *n.* 家禽
veal [viːl] *n.* （食用）小牛肉
beef [biːf] *n.* 牛肉
mutton ['mʌt(ə)n] *n.* 羊肉
pork [pɔːk] *n.* 猪肉
doublet ['dʌblit] *n.* 【语法】一对同源词（如cloak和clock）中的一个
countess ['kauntis] *n.* 伯爵夫人，女伯爵
county ['kaunti] *n.* 县，郡
in contrast to 和…形成对比/对照
lexicon ['leksikən] *n.* 词典
renaissance [rə'neisəns] *n.* 文艺复兴，文艺复兴时期
medieval [ˌmedi'iːvəl] *adj.* 中世纪的
dawn [dɔːn] *n.* 开始，发端
newfound ['njuːfaund] *adj.* 新发现的，新得到的
coin [kɔin] *v.* 造字，杜撰新词语
root [ruːt] *n.* 【语法】词根
prefix ['priːfiks] *n.* 【语法】前缀
suffix ['sʌfiks] *n.* 【语法】后缀，下标
in addition 此外
multiple ['mʌltip(ə)l] *adj.* 复合的，多样的
altimeter ['æltimiːtə] *n.* 高度计
allopathic [ˌæləu'pæθik] *adj.* 对抗疗法的
otorhinolaryngology ['əutəuˌrainəuˌlæriŋ'gɔlədʒi] *n.* 耳鼻喉学

TEST 10

Russian Archaeology

archaeology [ˌɑːki'ɔlədʒi] *n.* 考古学
archaeologist [ˌɑːki'ɔlədʒist] *n.* 考古学家
conduct ['kɔndʌkt;-dəkt] *v.* 进行
extensive [iks'tensiv] *adj.* 广大的，广泛的
excavation [ˌekskə'veiʃən] *n.* 挖掘，发掘
Moscow ['mɔskəu] *n.* 莫斯科（俄罗斯首都）
Novgorod ['nɔvgərɔd] *n.* 诺夫哥罗德（苏联城市）
artifacts ['aːtifækts] *n.* 史前古器物

architectural [ˌɑ:ki'tektʃərəl] *adj.* 建筑上的，建筑学的
thereby [ðεə'bai] *adv.* 因此，从而，由此
distinct [dis'tiŋkt] *adj.* 清晰的，明显的
barbarian [bɑ:'bεəriən] *n.* 粗鲁无礼的人，野蛮人
correspond with（= correspond to）与…一致，符合
Rurik 留里克（斯堪的纳维亚勇士，创建了统治俄国的留里克王朝，其统治一直延续到1598年）
usher ['ʌʃə] *v.* 引导，引进
Kremlin ['kremlin] *n.* 克里姆林宫
Red Square 红场（位于莫斯科中心的大块空地，周围有克里姆林宫、列宁墓、圣巴西勒大教堂和GUM百货店。苏联的五一节和俄国革命纪念日等主要节日时在该广场举行盛大游行以示纪念）
edifice ['edifis] *n.* 大厦，大建筑物
secular ['sekjulə(r)] *adj.* 非宗教的，世俗的
boast [bəust] *v.* 夸其所有，夸耀；夸口
fortress ['fɔ:tris] *n.* 堡垒，要塞
invasion [in'veiʒ(ə)n] *n.* 侵略；侵犯
virtually ['və:tjuəli] *adv.* 事实上，实质上
unstoppable [ʌn'stɔpəbl] *adj.* 无法停止的，无法阻碍的
fortification [ˌfɔ:tifi'keiʃən] *n.* 防御工事，要塞
oak [əuk] *n.* 【植】橡树，橡木
ash [æʃ] *n.* 灰，灰烬
residue ['rezidju:] *n.* 残余，渣滓
overlie [ˌəuvə'lai] *v.* 躺在…上面，睡在…上面
crude [kru:d] *adj.* 天然的，未加工的，粗制的
dwelling ['dweliŋ] *n.* 住处
unearth [ʌn'ə:θ] *v.* 使出土，（从地中）发掘，掘出
impractical [im'præktik(ə)l] *adj.* 不能实行的，不切实际的
tiled [taild] *adj.* 平铺的
disastrous [di'zɑ:strəs] *adj.* 灾难性的，悲惨的
prefabricate ['pri:'fæbrikeit] *v.* 预制，预加工
birch-bark *n.* 桦树皮
oxidize ['ɔksiˌdaiz] *v.*（使）氧化
conducive [kən'dju:siv] *adj.*（常与to连用）导致…的，有助于…的
overestimate ['əuvə'estimeit] *v.* 估计过度，过分评价
in the vicinity（常与of连用）附近，邻近
pupil ['pju:pil] *n.* 学生，小学生
craftsman ['krɑ:ftsmən] *n.* 工匠，手艺精巧的人
beeswax ['bi:zwæks] *n.* 蜂蜡
cera ['si:rə]〈拉〉蜂蜡
quantity ['kwɔntiti] *n.* 量，数量
dizzy ['dizi] *adj.*（指人）晕眩的，昏乱的
renowned [ri'naund] *adj.* 著名的，有声望的
Gospel ['gɔspəl] *n.*〈圣经·新约〉福音书
psalm [sɑ:m] *n.*〈圣经〉赞美诗，圣诗，圣歌
Slavonic [slə'vɔnik] *adj.* 斯拉夫语的
Orthodox ['ɔ:θədɔks] *adj.* 东正教的
Bulgarian [bʌl'gεəriən] *n.* 保加利亚人
Serb [sə:b] *n.* 塞尔维亚人
Greek [gri:k] *n.* 希腊人
slip [slip] *n.* 失误，小错误
layman ['leimən] *n.* 普通信徒，外行
consolation [ˌkɔnsə'leiʃən] *n.* 起安慰作用的人或事物
orphan ['ɔ:fən] *n.* 孤儿
alphabet ['æ:lfəbit] *n.* 字母表

Transportation Shapes Cities

rely [ri'lai] *v.*（与on, upon连用）依靠，依赖
network ['netwə:k] *n.* 网络，网状物
vessel ['vesl] *n.* 脉管，导管
circulate ['sə:kjuleit] *v.* 使（血液等）循环
organ ['ɔ:gən] *n.* 器官
metropolitan [metrə'pɔlit(ə)n] *adj.* 首都的，主要都市的，大城市的
reveal [ri'vi:l] *v.* 展现，显示
urban ['ə:bən] *adj.* 城市的，市内的
robust [rə'bʌst] *adj.* 健壮的，健全的
diversity [dai'və:siti] *n.* 多样性
sample ['sæmpl] *v.* 取样，采样，抽取…的样品
population density 人口密度
dispersed [dis'pə:st] *adj.* 分散的，散开的
low-density *adj.* 低密度的
sprawl [sprɔ:l] *v.* 不规则地伸展，蔓延
essential [i'senʃ(ə)l] *adj.* 必需的，基本的
transit ['trænsit] *n.* 运行，运输，运输线
bicycle ['baisikl] *n.* 脚踏车，自行车

compact [kəm'pækt] *adj.* 紧密的；结实的；密集的
mount [maunt] *v.* 增长
fatal ['feit(ə)l] *adj.* 致命的；毁灭性的
crash [kræʃ] *n.* 碰撞
nonetheless [ˌnʌnðə'les] *adv.* 虽然如此，但是
offset ['ɔ:fset] *v.* 弥补，抵销
toxic ['tɔksik] *adj.* 有毒的，中毒的
exceed [ik'si:d] *v.* 超过，超出
per capita 按人口平均计算
jumbo jet 大型喷气式客机，珍宝机
metro ['metrəu] *n.* 地铁，地下铁道
congestion [kən'dʒestʃ(ə)n] *n.* 交通堵塞
worsen ['wə:s(ə)n] *v.* 使更坏，使更糟
fossil fuels （煤、石油、天然气等）矿物燃料
monoxide [mə'nɔksaid] *n.* 一氧化物
sulphur dioxide 二氧化硫
nitrogen ['naitrədʒən] *n.* 【化】氮
oxide ['ɔksaid] *n.* 【化】氧化物
fine particle 粒，微粒
acidify [əsidifai] *v.* 使酸化，使成酸
devour [di'vauə] *v.* 破坏，吞没，毁灭
carbon ['kɑ:bən] *n.* 碳
watershed ['wɔ:təʃed] *n.* 分水岭
outweigh [aut'wei] *v.* 比…更重要；胜过
erode [i'rəud] *v.* 侵蚀，腐蚀
dense [dens] *adj.* 密集的
suburban [sə'bə:bən] *adj.* 市郊的，郊区的
agglomeration [əˌglɔmə'reiʃən] *n.* 凝聚
lessen ['lesn] *v.* 减少，减轻
Netherlands ['neðələndz] *n.* 荷兰
rush hour 高峰时间
deduct [di'dʌkt] *v.* 扣除，减除
incentive [in'sentiv] *n.* 刺激；鼓励，动机
eliminate [i'limineit] *v.* 排除，消除
hassle ['hæs(ə)l] *n.* 麻烦的事情

Waste Recycling

recycle ['ri:'saikl] *v.* 再循环，再生，重复利用
dramatically [drə'mætikəli] *adv.* 鲜明地，显著地
dwindle ['dwindl] *v.* 缩小
landfill ['lændfil] *n.* 垃圾掩埋法
incineration [inˌsinə'reiʃən] *n.* 烧成灰，焚化
an array of 一排；一群；一批
implement ['implimənt] *v.* 贯彻，实现，执行
comprehensive [ˌkɔmpri'hensiv] *adj.* 广泛的，全面的，综合的
framework ['freimwə:k] *n.* 构架，框架，结构
shift [ʃift] *v.* 变动；移动；更换
target ['tɑ:git] *n.* 目标，对象
adopt [ə'dɔpt] *v.* 采取，采用
holistically [həu'listik] *adv.* 全部的，全盘的
centralized ['sentrəlaizd] *adj.* 集中的
delegate ['deligeit] *v.* （常与to连用）托付；授权
leverage ['li:vəridʒ] *v.* 促使…的改变
voluntary ['vɔləntəri; (*US*) -teri] *adj.* 自愿的；自发的；志愿的
Portland ['pɔ:tlənd] *n.* 波特兰（美国俄勒冈西北部港市）
packaging ['pækidʒiŋ] *n.* 包装
call on 号召，呼吁
Duluth [də'lu:θ] *n.* 德卢斯（美国明尼苏达州东北部港市）
Minnesota [ˌmini'səutə] *n.* 明尼苏达州（美国州名）
mercury thermometer 水银温度表
deposit [di'pɔzit] *v.* 存放，堆积
beverage ['bevəridʒ] *n.* 饮料
container [kən'teinə(r)] *n.* 箱；罐；容器
Missouri [mi'zuəri] *n.* 密苏里州（美国州名）
Seattle [si'ætl] *n.* 西雅图
cutlery ['kʌtləri] *n.* 餐具
restrict [ris'trikt] *v.* 限制，约束，限定
vendor ['vendɔ:] *n.* 小贩，叫卖商
spur [spə:] *v.* 鞭策，刺激
guiding principles 指导方针
sustainable development 可持续发展
ordinance ['ɔ:dinəns] *n.* 法令，条例
aluminium [ˌælju:'minjəm] *n.* 【化】铝
composite ['kɔmpəzit; -zait] *n.* 合成物
cardboard ['kɑ:dbɔ:d] *n.* 纸板，硬纸板
approach [ə'prəutʃ] *n.* 方法，途径
subsequent ['sʌbsikwənt] *adj.* 随后的，后来的；继起的
end user 终端用户

tradable ['treidəbl] *adj.* 可贸易的，可买卖的
broker ['brəukə(r)] *n.* 经纪人；掮客
theoretically [θiə'retikəlli] *adv.* 理论上，理论地
cost-effective *adj.* 有成本效益的，划算的
predominant [pri'dɔminənt] *adj.* 主要的，突出的
emission [i'miʃ(ə)n] *n.* 发出物；发射物
municipality [mju:ˌnisi'pæliti] *n.* 市政当局，自治市
subsidy ['sʌbsidi] *n.* 补助金，津贴
electronics [ilek'trɔniks] *n.* 电子工业
procurement [prə'kjuəmənt] *n.* 获得，取得

Answer Keys

Each question correctly answered scores 1 mark.

雅思阅读水平自测题

Reading Passage 1, Questions 1 – 13

1 C
2 B
3 S
4 T
5 S
6 T
7 R
8 FALSE
9 TRUE
10 TRUE
11 NOT GIVEN
12 NOT GIVEN
13 TRUE

Reading Passage 2, Questions 14 – 26

14 vii
15 ii
16 v
17 i
18 iii
19 C
20 C
21 A
22 insoluble
23 absorbed
24 dispersion
25 intensity and brightness
26 opacity/(the) degree of opacity

Reading Passage 3, Question 27 – 40

27 gland
28 dragline silk
29 strong, tough, (and) elastic/strength, toughness (and) elasticity
30 an amorphous matrix/the amorphous areas/non-crystalline matrix
31 (the) less rigid crystals
32 the rigid crystals
(30 – 32 in any order)
33 NOT GIVEN
34 FALSE
35 TRUE
36 FALSE
37 NOT GIVEN
38 (a) third claw
39 (spiny, elastic) hairs
40 walking claw(s)

雅思阅读题型单项训练

LIST OF HEADINGS

Exercise 1: Pre- and Post-Interview Self-Marketing

1 ii
2 iv
3 iii
4 ix
5 v
6 vii
7 i

Exercise 2: Interpretation and Interpreter

1 iv
2 ii
3 i
4 iii
5 vi
6 viii
7 vii

Exercise 3

1 A
2 vi
3 ix
4 i
5 iii
6 v
7 vii
8 ii

Exercise 4: Media Representation of Women

1 viii
2 ii
3 v
4 i
5 iii
6 vi

Exercise 5: Butterfly Farm

1 viii
2 iii
3 i
4 vi
5 v
6 ii
7 iv

MATCHING

Exercise 1: Barristers and Solicitors

1 A
2 A
3 B
4 B
5 A
6 A
7 B

Exercise 2: Linguistics and Applied Linguistics: Hierarchy or Partnership?

1 A
2 B
3 A
4 B
5 A
6 AB
7 AB

Exercise 3: Salmon Saving

1 E
2 C
3 D
4 B
5 C
6 A

Exercise 4: An Exploration of Alchemy

1 C
2 D
3 E
4 A
5 C
6 A
7 B

MULTIPLE CHOICE QUESTIONS

Exercise 1: 50 Years of British Popular Culture

1 c
2 b
3 d
4 a
5 b
6 c
7 d

Exercise 2: Eye-Catching Advertisement

1 b
2 a
3 d
4 c
5 b
6 a
7 c

SUMMARY

Exercise 1: Fraud in Science

1 abandon
2 concoctive
3 a cumulative process
4 function
5 the lab chief

Exercise 2: Volcano

1 R
2 J
3 P
4 I
5 N
6 L
7 M
8 Q
9 C

Exercise 3: Ancient Money

1 weighed out
2 smaller
3 attest to
4 Lydia
5 the Greek nations
6 artistic
7 gradual improvement
8 symmetry
(7, 8 in either order)

Exercise 4: Rhythms of Natare

1 biorhythms
2 biological clock
3 four genes
4 their proteins
5 reversal
6 adjusted
7 artificial
8 identical
9 tidal strike
10 periodical
11 rhythmical
(10,11 in either order)
12 migrate
13 hibernates
14 unseen
15 celestial bodies
16 menstrual rhythm
17 moon

Exercise 5: The Lost Continent

1 an Egyptian priest
2 Greek ruler (Solon)
3 subjected
4 natural disasters
5 complacence/complacency
6 greed/greediness

(5, 6 in either order)
7 possessed
8 harnessing
9 nuclear power
10 (many) cultural similarities

TRUE/FALSE/NOT GIVEN

Exercise 1: Morse Code

1 FALSE
2 NOT GIVEN
3 TRUE
4 TRUE
5 NOT GIVEN
6 FALSE

Exercise 2: Keys to Cosmology

1 YES
2 YES
3 NO
4 YES
5 NOT GIVEN
6 NOT GIVEN

Exercise 3: No Free Lunch

1 NOT GIVEN
2 TRUE
3 FALSE
4 NOT GIVEN
5 TRUE
6 FALSE

Exercise 4: London Smog

1 TRUE
2 TRUE
3 FALSE
4 FALSE
5 NOT GIVEN
6 NOT GIVEN
7 FALSE
8 TRUE

Exercise 5: Snake Venom

1 NO
2 NO
3 NO
4 YES
5 NO
6 NOT GIVEN
7 NOT GIVEN
8 YES
9 NO
10 NOT GIVEN

Exercise 6: Bullying at School: Tackling the Problem

1 FALSE
2 TRUE
3 TRUE
4 FALSE
5 NOT GIVEN
6 NOT GIVEN
7 NOT GIVEN
8 NOT GIVEN
9 FALSE
10 FALSE

Exercise 7: Why Pagodas Don't Fall Down

1 FALSE
2 NOT GIVEN
3 TRUE
4 NOT GIVEN
5 TRUE
6 TRUE
7 FALSE
8 TRUE
9 NOT GIVEN

Exercise 8: The Orion Spacecraft

1 NOT GIVEN
2 NOT GIVEN
3 NOT GIVEN
4 NOT GIVEN
5 YES
6 NO
7 NO
8 NO
9 YES
10 YES

SENTENCE COMPLETION/SHORT ANSWER QUESTIONS

Exercise 1: Past and Present of Movie Industry

1 admission
2 numerous smaller theaters
3 national advertising medium
4 invention of TV
5 financial assistance/merger
6 heavy debts
7 market share
8 Carmike Cinemas Inc.

Exercise 2: Foreseeable Problems of Digital Television

1 Muggles/Muggle
2 loss of dynamism/lethargy
3 copyright interests
4 content companies
5 Congress
6 consumer electronics company
7 broadcasters

Exercise 3: Marijuana

1 15 years
2 no more than four/less than five
3 cellular damage (to the lungs)
4 more loosely packed; no filters; smokers inhale more deeply; smokers hold breath longer (any three)
5 sluggish immune cells

PICTURE/FLOWCHART/TABLE

Exercise 1: The Oceanographer's Dream Ship

1 (the disused) oil tanker
2 (the) arm
3 labs

Exercise 2: Today's Noise Pollution Solutions

1 tiny hair cells
2 a membrane
3 electrical impulses
4 the brain

Exercise 3: Lightning Tamers

1 water droplets
2 ice crystals
(1, 2 in either order)
3 (charged) particles
4 electric fields
5 electric currents/streamers
6 (strongly) ionized channel

Exercise 4: African American Marriage in the 20th Century

1 1880
2 a married couple
3 54%/fifty-four percent
4 30%
5 2000

雅思阅读真经试题

TEST 1

Reading Passage 1, Questions 1 – 13

1 D
2 C
3 C
4 C
5 Reading phrases/Read by phrases
6 Limited perceptual span
7 Slowness of recognition
8 Faulty eye movements
9 Avoid regressing
10 TRUE
11 FALSE
12 FALSE
13 TRUE

Reading Passage 2, Questions 14 – 26

14 viii
15 ix
16 iv
17 vii
18 iii
19 350 million years
20 75 million years
21 a warm laboratory/a laboratory
22 February and March
23 weak
24 flexible
25 glide
26 ecological niche

Reading Passage3, Questions 27 – 40

27 D
28 B
29 B
30 F
31 C
32 D
33 B
34 D
35 D
36 NO
37 NOT GIVEN
38 NOT GIVEN
39 NO
40 NO

TEST 2

Reading Passage 1, Questions 1 – 14

1 wired
2 calms
3 prolonged concentration
4 involuntary body functions
5 NO
6 YES
7 NO
8 NO
9 personal
10 cost
11 marketed
12 reluctant
13 promising
14 nutrition

Reading Passage 2, Questions 15 – 27

15 v
16 viii
17 ii
18 vii
19 B
20 A
21 D
22 C
23 FALSE
24 TRUE

25 FALSE
26 FALSE
27 NOT GIVEN

Reading Passage 3, Questions 28 – 40

28 D
29 C
30 B
31 A
32 not planning wisely/need to contribute/appreciation from others/create something (any three)
33 continue to work
34 little effect
35 physically demanding
36 slight negative
37 FALSE
38 TRUE
39 NOT GIVEN
40 A

TEST 3

Reading Passage 1, Questions 1 – 13

1 I
2 C
3 S
4 C
5 T
6 D
7 D
8 C
9 B
10 pressure
11 rotated
12 view
13 broadcasts/languages

Reading Passage 2, Questions 14 – 26

14 E
15 B
16 E
17 A
18 C
19 D
20 A
21 C
22 lower animals
23 self-consciousness
24 complex cognition
25 "higher" animals
26 animal experimentation

Reading Passage 3, Questions 27 – 40

27 iv
28 vi
29 viii
30 v
31 ix
32 E
33 D
34 B
35 C
36 YES
37 NOT GIVEN
38 NO
39 YES
40 NO

TEST 4

Reading Passage 1, Questions 1 – 13

1 H
2 G
3 D
4 B
5 European starlings
6 Steve Emlen
7 Geomagnetic cues
8 YES
9 NO

10 YES
11 NO
12 NOT GIVEN
13 YES

Reading Passage 2, Questions 14 – 27

14 NOT GIVEN
15 NOT GIVEN
16 FALSE
17 TRUE
18 FALSE
19 C
20 D
21 B
22 E
23 A
24 formal axiomatics
25 generalize/generalise
26 abstract
27 essential

Reading Passage 3, Questions 28 – 40

28 NOT GIVEN
29 FALSE
30 TRUE
31 YES
32 B
33 A
34 C
35 D
36 Afribike
37 people-carriers
38 (village) roads
39 candidates/coordinators
40 vehicles

TEST 5

Reading Passage 1, Questions 1 – 13

1 YES
2 NO
3 YES
4 NOT GIVEN
5 4,160
6 370
7 Egyptian Nubians
8 Great pyramids
9 Egypt's power supply
10 evaporation
11 sediment
12 storage capacity
13 agglomeration

Reading Passage 2, Questions 14 – 26

14 D
15 D
16 C
17 D
18 NO
19 YES
20 NO
21 YES
22 YES
23 sleep in trees/during the day
24 grave danger
25 diseases and bacteria
26 chlamydia

Reading Passage 3, Questions 27 – 40

27 vi
28 viii
29 v
30 ix
31 iii
32 NO
33 YES
34 NOT GIVEN
35 YES
36 YES
37 transportation
38 budget

39 storage
(37 – 39 in any order)
40 savings

TEST 6

Reading Passage 1, Questions 1 – 13

1 FALSE
2 TRUE
3 FALSE
4 FALSE
5 TRUE
6 TRUE
7 NOT GIVEN
8 FALSE
9 (the) pendulum clock
10 (the) hemispherical dial
11 (Egyptian) shadow clock
12 (the) elevated crossbar
13 (the) long stem

Reading Passage 2, Questions 14 – 26

14 in-flight mobile phone
15 no technology problem
16 passenger problem
17 advocates
18 emergency drills
19 D
20 C
21 A
22 B
23 A
24 B
25 A
26 B

Reading Passage 3, Questions 27 – 40

27 iii
28 viii
29 v
30 i
31 deep motor area
32 window of opportunity
33 foreign language(teachers)
34 plausible/plausibility
35 electrical measurements
36 left hemisphere
37 injured
38 plastic
39 large areas
40 circuits

TEST 7

Reading Passage 1, Questions 1 – 13

1 balloons and gliders
2 insufficient human power
3 rigid-wing
4 aerodrome
5 D
6 A
7 E
8 C
9 B
10 NO
11 YES
12 NOT GIVEN
13 NO

Reading Passage 2, Questions 14 – 26

14 J
15 D
16 G
17 F
18 B
19 FALSE
20 FALSE
21 NOT GIVEN
22 FALSE
23 NOT GIVEN
24 colony residents

25 lay (their) eggs
26 recycle

Reading Passage 3, Questions 27 – 40

27 NOT GIVEN
28 YES
29 NO
30 NO
31 mainland Asians
32 vikings
33 Europeans
34 Africans and Caribbeans
35 English colonists
36 timing and origin
37 glacial maximum
38 violence and disease
39 religious dissenters/Pilgrams
40 crop failures

TEST 8

Reading Passage 1, Questions 1 – 13

1 five/5
2 five/5
3 3 to 7
4 seven/7
5 salmon migration/water velocity
6 water/river temperature
7 fish passage facities
8 1938
9 NO
10 YES
11 NOT GIVEN
12 YES
13 YES

Reading Passage 2, Questions 14 – 26

14 v
15 iv
16 vi
17 ix
18 x
19 YES
20 YES
21 NO
22 NOT GIVEN
23 NO
24 NO
25 NO
26 NO

Reading Passage 3, Questions 27 – 40

27 C
28 B
29 B
30 C
31 healthy weight
32 sliding scale
33 pear
34 apple
35 balanced
36 the whole family/parents
37 2 ½ hours/150 minutes
38 couch-potato tendencies/an inactive lifestyle
39 regular physical activity
40 obese

TEST 9

Reading Passage 1, Questions 1 – 13

1 the hidden products/illicit drugs
2 trial basis
3 aggressive
4 chassis
5 YES
6 YES
7 NO
8 NOT GIVEN
9 all kinds
10 certain objects only

11 diminishes
12 larger regions
13 regular intervals

Reading Passage 2, Questions 14 – 26

14 NOT GIVEN
15 NO
16 NO
17 YES
18 Richmond/Richmond, virginia
19 1897
20 electric
21 overhead wires
22 B
23 D
24 A
25 E
26 C

Reading Passage 3, Questions 27 – 40

27 vi
28 ix
29 viii
30 ii
31 v
32 E
33 C
34 D
35 G
36 B
37 NO
38 NOT GIVEN
39 YES
40 NOT GIVEN

TEST 10

Reading Passage 1, Questions 1 – 13

1 NO
2 NO
3 NOT GIVEN
4 YES
5 dry oxidized soil
6 50th/50 year
7 450
8 icon
9 literate
10 1006–1007
11 Russian
12 stilo/pointed rod
13 thirteen/13

Reading Passage 2, Questions 14 – 26

14 iii
15 vii
16 viii
17 ix
18 ii
19 NO
20 YES
21 NOT GIVEN
22 NOT GIVEN
23 downtownbound
24 solo driving
25 electric cars/electric car-sharing
26 urban areas

Reading Passage 3, Questions 27 – 40

27 E
28 C
29 A
30 B
31 D
32 FALSE
33 TRUE
34 TRUE
35 TRUE
36 TRUE
37 TRUE
38 NOT GIVEN
39 FALSE
40 NOT GIVEN

Enigma Decryptions 难题解析

雅思阅读水平自测题

Reading Passage 1: The Geodesic Dome—the House of the Future

Q1.　In 1944, government officials were interested in Fuller's family dwelling because C. it could be produced rapidly and installed easily.

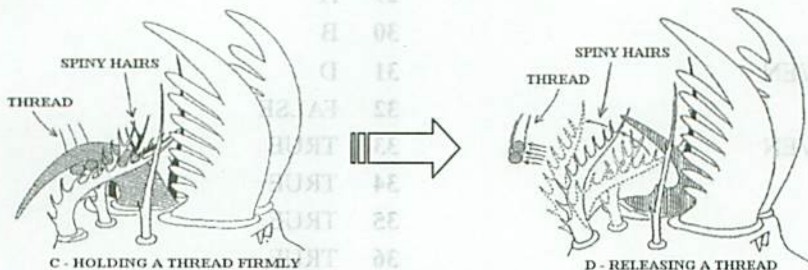
问题：题中 A 选项是“政府对其感兴趣”的根本原因（房屋短缺），C 选项是直接原因(dome 房子的特色)；两种原因提出的角度不同，且 C 选项不包含 A 中的意思，为何选 C 而不是 A 呢？

解答：A 选项确实容易令人迷惑。注意 A：they had a housing shortage. 中 they 指政府官员。B 选项答非所问，不是直接原因。

Reading Passage 3: Spider Silk

原文：“This mechanism involves a clever anatomical adaptation. Each leg ends in a pair of ‘walking claws’ that grasp vegetation, among other functions, but a third claw collaborates with associated spiny, elastic hairs to detach the leg from a sticky web strand. This third claw grasps the strand, pulls it against the elastic hairs, and pulls them further, cocking the mechanism. When the claw relaxes, the hairs rebound vigorously, throwing the strand away and springing the leg free.”

所描述的情景为：



雅思阅读题型单项训练

Multiple Choice Questions

Exercise 1: 50 Years of British Popular Culture

Q7. Presently the most warmly embraced radio station in Britain is BBC Radio 2 because it caters to the general public's D. nostalgia for the music dominated by the Beatles.

问题： Why can't I choose B. nostalgia for the popular music since Queen's ascension of the throne? As the Queen has been ruling for 50 years, and the text says "nostalgia for the 'pop' music of the last 50 years"

解答： 全文最后一句，"怀旧歌曲"指甲壳虫乐队的歌曲，故选D，B选项太泛，D选项明确具体。

Summary

Exercise 2: Volcano

Q1. 答案R：the magma. 干扰选项为B：magma and gases. 原文中magma and the dissolved gases it contains are discharged. "岩浆和岩浆中溶解的气体流出"。注意动词是"are"；题目中动词为"is"。应填"the magma"，指溶有气体的岩浆。

True/False/Not given

Exercise 1: Morse Code

Q3. Too many separated wires of the telegraph prototype made it unfeasible.

问题： 为什么不是选NG而是选T呢？答案在文章哪里定位啊？

解答： 文章第3段的倒数第一句和第二句。题干表达是这两句的总结改写。

Exercise 2: Keys to Cosmology

Q2. In cosmic history, radiation dominated universe before matter did so.

问题： 为什么是选YES，好像在文章里找不到。

解答： 原文第4第5自然段描述了过程先后的时间顺序。

Q4. In cosmologists' debates, the big bang and inflation theories defeated their alternatives such as the steady state theory.

问题：原文 Cosmologists have settled the disputes that once animated their field, such as the old debates between the big bang theory and the steady state theory and between inflation and its alternatives. Noting in science is absolutely certain, but researchers now feel that their time is best spent on deeper questions, beginning with the cause of the cosmic acceleration. 我看到关于 the big bang and inflation theories and the steady state theory 的只有这一段，可是没有表明 Q4 的观点啊，为什么 Q4 选 TURE, 而不是 NOT GIVEN 呢？

解答：文章说科学家已经解决了这些争论（have settled the disputes）——要么是同意了老观点，要么是同意了新观点。该段最后又说科学家已经把注意力放到了寻找 the cause of cosmic acceleration（新观点）上了。那么理解起来不就是新的观点被科学家们认同了吗？同时请注意文中的两个并列结构：the old debates between the big bang theory and the steady state theory and between inflation and its alternatives，下滑线为新观点。该题考段内上下文联合理解。

Q5. Cosmologists' initial responses to the revolutionary discoveries were always conservative.

问题：文章用词是 fairly, 题目中是 always. 为什么不是 NO 而是 NG 呢？如果文章中用词是 often，但是题目中 sometimes 是 F（见 Morse Code Q6），两个有什么区别吗？

解答：fairly 是"相当地"的意思，表示程度；always 是"经常"的意思，表频率，所以是 NG。而 often 和 sometimes 都是表频率，可以比较，而且不同。

Q6. The law of gravity works in entirely distinct manners on small and gigantic scale.

问题：可以在文章倒数第二段最后一句找到定位，可是文章中提到的 gigantic 和题目是一样的，至于题目中的 small 文章是没有的。而不知道的文章中的 humble 是不是和 small 同一个意思，如果是，应该选 T，如果不是应该是 F，怎么会是 NG 呢？

解答：humble 和 small 是同一个意思，但题目中是 entirely，文中是 maybe，题目中可能性缩小，故选 NG。

Exercise 3: No Free Lunch

Q1. According to JAMA, each physician can obtain $8,000 to $ 13,000 per year from pharmaceutical industry's drug promotion.

问题：为什么不是 TRUE? 文中说制药厂在每个医生身上花了这么多钱为什么就不能反过来说这些医生得到这么多钱呢？

解答：这笔费用是制药厂的促销费用，并不一定是医生实际得到的。

Q3. The more expensive the drug, the better its healing effect.

问题：为什么选 F？我们定位在第六段：yet the more expensive drugs, which are heavily marketed to doctors, are far more frequently prescribed. 没有提到药的疗效，也没有直接驳斥原文啊？

解答：也是在第 6 段，在你定位那句话的前面几句都在讲此事。甚至举例说一种 2 块钱一粒的药疗效没有价格只有几分钱的另一种药好。

Q6. Goodman has never received any perk from drug salesmen.

问题：为什么选 F 啊？

解答：第 3 段首句。

Exercise 4: London Smog

Q1. In 1952, London was the most densely populated city in the world.

问题：我怎么也找不到文章中的定位 .

解答：文中第 2 段，more people lived closer together in London... than in any other modern city...

Q2 & Q3 要理解原文"Ships often returned from the less-populated northern British Isles empty, except for the crew. To weather the rough seas around the coast, mariners filled their holds with what became known as sea-coale, carbonem marus."回航的船为了抵御海岸边的风浪，水手们在货舱内装满了一种煤，让船更重，而稳定。

Q5. Less than 3,000 people would die within one week in 1952–1953 if it were not for the coal smoke.

问题：为什么不是 TRUE？第 5 段不是说的很清楚这是因为"coal smoke"造成的?

解答：题目说"如果没有煤烟，在那一周死亡的人数会少于 3000"；原文说"一周内死的人比正常情况下多出 3000 多"，正常一周的死亡人数原文没提。

Q8. Smoking, as well as polluted air, can result in lung cancer and other ailments.

问题：文中对应的是倒数第 3 段最后一句，为什么不是 NG？

解答：文章最后一段说吸烟和喝酒会引起这个病，但这些嗜好却不是引起城区这些病一直维持的主要原因，而开头说的是环境对身体的影响，于是可知——环境也会导致这样的病。

Exercise 5: Snake Venom

Q2. The king cobra can bite itself with fangs and commit suicide.

问题：文中说 Bite the floor of its mouth 跟题目中的 Bite itself 不是一个意思吗？我选了

TRUE。

解答：第 3 段，“They have to be short. If they WERE longer, the king MIGHT bite …”注意文中虚拟 (were longer)，与众所周知的事实 (They have to be short) 相反。故选 NO。

Exercise 6: Bullying at School: Tackling the Problem

Q4. The problem is definitely more serious than what these surveys' figures have shown.

问题：为什么不是 TRUE？第三段中“these figures probably underestimate the problem”

解答：题目是 definitely，原文是 probably。

Q6. Competition for grades and other pressures should take the responsibility of school bullying.

问题：原文提到了是 assumption 而题干没有，所以我选了 false（觉得和原文有 probably 题干没有一样）。不明白为什么是 NG，是否因为像 assumption，probably 这样的词本身就包含了可能性。

解答：原文中有 assumption，译为人们对暴力原因的几种猜测，这种猜测最终是不是能成为事实，不可知，所以问题的题干可对可错，所以选 NG。

Q10. Overall, the problem-behaviour programmes in the U.S. generate satisfying results.

问题：在原文中没有找到对应的语句。

解答：全文倒数第 4 段中“Only 10 of the programmes satisfied the specified minimum criteria of the evaluation.”400 个中只有 10 个 programmes 达到最低要求。

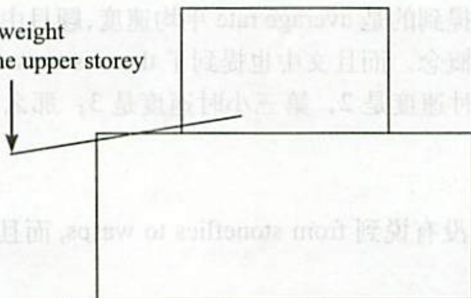
Exercise 7: WHY PAGODAS DON'T FALL DOWN

Q5. 题目可理解为：“西方现代建筑学中的结构力学没有研究易弯曲的建筑。”

找到原文为：“This is because building science evolved in the West as a discipline dealing with the structural mechanics of rigid bodies, that is, buildings of stone, brick, or concrete.”说它研究的是刚性物体，如砖、石、混凝土等建筑。如果只是通过这句话判断，则易选 NG。但上文中说日本塔是木质而抗震，从现代的建筑学的观点立场无法解释。因为西方现代建筑学中的结构力学研究的是刚性物体（rigid bodies）。所以我们可以判断木质的日本塔为非刚性（yielding），西方的结构力学无法解释，是因为它不研究 yielding bodies. 答案为 TRUE.

Q6. 题目为：“日本塔的塔檐重量由上面一层塔来支撑。”

答案比较明显，原文有同意表达。但要理解 how，下图为原文描述的杠杆原理：



Q7. Japan's pagodas were built to oppose the impact of nature forces in the front.

问题：为什么选 FALSE？

解答：全文倒数第 3 段，"Built not to resist the forces of nature head-on but to accept and absorb their impact..."

Exercise 8: The Orion Spacescraft

Q3. Some extreme advocates of the Orion believed that the fears about nuclear technology were no necessary.

问题：文中第 2 段不是说支持者们觉得不用担心核工业吗，为什么答案是 NG 呢？

解答：原文 Some of the more extreme advocates of the Orion system present it as the holy grail of space travel, which could have taken mankind into a new age of space travel in the 50s or 60s were it not for misplaced fears about nuclear technology. 这道题先理解"were it not for"，意思是"若不是有……的话，若非"。文中说："极端支持者认为它是太空旅行的里程杯，要不是对核技术错误的害怕，它应该可以在五六十年代就把人类带入太空旅行的新纪元。"文中表达的意思是极端支持者认为五六十年代对核技术是错误的害怕。没有提到需不需要害怕或审慎的担忧核技术，故选 NG。难题。

雅思阅读真经试题

TEST 1

Q11. 这道题我选了 NG，不知道为什么错。

答：原文出自倒数第 2 段第 2 句。题目中 overall adjustment 是指 the total article，和题目中 each part of the reading material 也就是 internal adjustment 是对立的两个概念，本题属张冠李戴，故选 FALSE。

Q12. 文章中把阅读的两种速度和爬山相比较来解释两种速度，但是此题根本没有在文章中体现过，文章中只不过是个假设来比喻，我觉得应该是 NG。而不是 F。

答：　文中倒数第二段提到的是 average rate 平均速度，题目中提到的是 set rate 固定速度。这是两个不同的概念。而且文中也提到了 there is no set rate... 比如：我第一小时速度是 1，第二小时速度是 2，第三小时速度是 3；那么我的平均速度是 2，但没有固定速度。

Q14.　文中第一段根本没有说到 from stoneflies to wasps，而且也没有出现 wasp 为何会是这个 heading？

答：　14 题问的是 B 段的 heading。审题仔细。

Q22.　找不到原文？

答：　原文 C 段第 3 行。

Q36.　我选的是 YES，答案是 NO，不理解。

答：　这道题比较难。原文在 E 段：But the increase of index for the difference between primary level to secondary level or higher (at least ten years of schooling) is even greater, moving up from .811 to .882. 通过 0.882 减去 0.811 确实是 0.071，但这不是相差 10 年学校教育的差距。因为扩号中 at least ten years of schooling 修饰的是 secondary level or higher，而不是 the difference。其实 primary level（小学教育）和 secondary level（中学教育）相差不到 10 年。后面一句话说：Thus, the difference between child survival index rises from .764 to .882 with the difference of no schooling to ten or more years of schooling. 所以题干中说到的 10 年教育差距，index 应该增加 0.882 减去 0.764 等于 0.118。

Q37.　我选的是 YES。

答：　这道题考察语言的正确理解的思维。题目说：少于 7 年的学校教育增加严重疾病的风险。而原文中 E 段第 3 行说的是：7 年或以上的学校教育会降低 55%的风险。我们不能由此推断：6 年的学校教育会增加风险。有可能的是：6 年学校教育不会显著降低风险，效果不好。所以该题目选择 NOT GIVEN。难题。

TEST 2

Q7.　该题我选的是 NG，我觉得无法和原文比较。

答：　原文中说的是 ratio of beta to theta 增加，题目中说的是 theta 增加，是不同的。何况 theta 作为分母增加，那么 ratio of beta to theta 应该减少才对。

Q8.　原文中找不到啊？

答：　怎么可能呢。原文第 6 段：both groups showed substantial improvements... 而且第 7 段首句说：The difference between the two groups was motivation. 也说明 improve-

ment 没有区别啊。

Q18. 文中这一段全是讲大楼的通风体系，而且基本上都是在讲如何 heating 没有出现如何 colding, 所以我觉得 hot and cold 不对，这个 list 中没有什么合适的 heading，如果硬要找的话，我觉得 advanced technology 比较合适。

答： 段中的 air conditioning 就是 cold 的指代。注意到段落中的这句话：Air condition originated from refrigeration. The process of refrigeration is to draw heat away from substances to lower their temperature. 记得 refrigerator（冰箱）这个单词吗。其实这句英语读完我感到非常的 cold。

Q26. 我选了 NOT GIVEN，原文没有提到 the early 20th.

答： 注意 F 段首句，这是该题的原文出处。同时可以判断 architects still seek solutions 是在 1916 和 1950s 之间。

Q38. 文中只是说 organizations will need to assess the consequences to profits and productivity of encouraging talented and wise elders to exit the work force. 到底能不能减少根本没有说，所以我觉得是 NG 不是 T。

答： 这道题比较难，需要理解文章中心思想。文中主要强调“老年员工的价值”。第一段中：...making the notion of retirement for older workers a serious drain on organizational productivity.

第 6 段 organizations will need to assess the consequences to profits and productivity of encouraging talented and wise elders to exit the work force. 说企业应该评估老年员工退休对生产力的影响，其实暗示有负面影响的可能。题干中说的是 may fall 有可能降低，其实是原文这句话的原意表达。

Q40. 文章基本上是讲现在老年人不能早退休，退休有什么不好的影响，然后鼓励要社会让老人继续工作。我觉得并没有提出什么 new meaning of retierment, 而是鼓励公司让老年人工作，让他们重视老年人的价值（文章一直在强调老年人的价值很高）所以我认为 C 和 D 都比 A 好些。

答： 首先要确定整篇文章的中心词 retirement，而且重点介绍了一种新兴的方式 bridging, a form of partial retirement. C 选项太极端片面，A 选项 the new meaning of retirement 指的是对退休进行新的理解和解读，比较全面。

TEST 3

Q13. 这个空后面是 to be transmitted，文章中是这么说的 since the equipment can transmit on two channels, two different languages can be broadcast at once, 所以我填了 languages 而且 broadcasts 被传送是不是有点不搭配？

答：　Languages 也可以，是正确的。

Q32.　整篇文章都找不到1600，E 选项从哪里来？

答：　E 选项从 E 段最后一个单词 generation 来。字典解释 generation 指：一代（约 25－30 年）。上文中提到 1570，加上 over the next generation，就是 1600 左右。其他选项都不对。

Q38.　这道题我选了 YES，原文中说：leadership in mapmaking went along with commercial and military prominence. Maps were essential tools of both commerce and war.

答：　原文中确实提到地图制造业的发展是商业和战争的需求刺激相关。也说了意大利的地图制造业发达。但是原文明确指明了意大利是 leading centre of trade。所以好的地图制造者在意大利不是因为战争的需要，而是商业的原因。

TEST 4

Q9.　看不见太阳怎么使用 solar cues 呢？

答：　C 段后面有一句话：Even nocturnal migrants take directional information from the sun. 后面讲到 birds can detect polarized light from sunlight's penetration.

Q35.　four-legged ?

答：　第 6 段中 donkeys。

TEST 5

Q3.　题目中说是 rebuilt 而文章中只是说 subsequently raised in 1912 and 1933，加高不能等于重建吧，所以我认为是 NG，不是 Y，文章没有提到重建。

答：　rebuild 指：重建，改造，改建。

Q19.　题目中说 After a koala's brain is fully developed it emerges outside its pouch. 但是文中 by 22 weeks the baby begins to turn in the pouch and kick, occasionally looking out into the natural world. By 24 weeks, the cub is fully covered with fur and brain development is complete. 你看在完全成熟之前已经会偶然探出头来了，所以此题应该是 N 吧，不是 Y。

答：　题干 emerge 指"显现，脱出来"，和原文 look out into 向外看不同。原文说 At thirty weeks, the cubs climbs in and out of the pouch... 才对应题干。

Q24.　这道题怎么找定位词啊？？很多地方都说了这些人对小考拉的坏处，我做每份卷子

都是按时间做的，所以直接写个 hunter 上去了。

答： 可跟据顺序原则在上题原文出处的后面找，注意 logger 就是 people who cut down trees.

Q32. 原文应定位何处？为何答案是 NO，我选的是 NG？

答： C 段第 2 句，注意“such surveys shed little light on the economizing practices of households.” Little 表否定。

Q35. 没有找到原文根据。

答： F 段第 3 句中：“...private-label products, which are on promotion less often...than the brand-name alternatives.”

Q36. 没有找到原文根据。

答： F 段第 4 句，重点看“with those shares decreasing with increasing income levels”，可推出 middle-income 的状况。

TEST 6

Q4&Q5. 这两个题目中说的都是在文章中找不到的啊，文章中只是描绘了他们的样子，难道可以通过样子或者体积重量来判断来解答吗？？

答： 有啊。第 4 题 obelisks 原文有解释，是一个像人民英雄纪念碑一样的东西，怎么能 carry around？第 5 题说 water clocks didn't depend on the observation of celestial bodies. 当然在室内可以用啦。不像日晷，需要太阳光。

Q21. 题目中说 final say 文中一大段讲了三个方面首先是 the regulatory authorities decide on safety matters，然后是 telecoms players，最后是 airlines。要综合考虑前面两个的意见，第一位仅仅解决安全问题，具体到实施还要三个缺一不可吧。

答： 这道题有点难，要对出原文中对 regulatory authorities 地位的强调，如：regulatory bodies still have to be convinced。

Q23. vodafone 在文中的定位和上面一题是一个地方的，文章中说了他们不想让自己的牌子受到安全舆论的影响所以应该是 B 不支持吧，怎么是 A 呢？？

答： 是 A。不想别人说自己牌子的产品在飞机上不好用。

Q24. 找不到 AFA。

答： 第 4 段最后一句中 the Association of Flight Attendants 就是 AFA。

Q26. 还是找不到。

答：　第 4 段中第 2 句：the Civil Aviation Authority。

Q33.　我找不到定位词啊，感觉 DE 两段中好像有提到，但是怎么填这个空呢？？

答：　D 段第 3 行。填 foreign language (teachers)。

Q38.　文章中有两个地方可以填吧，一个是答案而我填了 able，因为上一空是填 injuried，文章中是说 children who suffer injuries to the left hemisphere are able to develop —— 如果根据前一个空定位的话那应该是 able 啊，如果再碰到这种情况应该怎么处理呢？？

答：　注意空格后面的单词是 enough。只听过 good enough，没有听过 be able enough to do。没有这个表达。

TEST 7

Q10.　他哥哥的名字在哪里啊？？没有找到，难道赖特兄弟是他哥哥吗？？

答：　Wilbur。考察上下文阅读理解能力。

Q19.　文章中说蚂蚁沿着 pheromones 去找能找到食物，但是没有说食物中有这个东西时是不是容易找，应该是 NG 吧，不是 F 吧？？

答：　这是一道张冠李戴的题，food 中没有 pheromones 信息素。蚂蚁会分泌信息素。

Q21.　文章中不是说了最短的路线会被回来的蚂蚁加强吗，而且后面还有蚂蚁会加强吧，为什么不是 F 而是 NG 呢？

答：　仔细阅读 D 段。

Q27.　文章中说 the prehistoric Jomon people of Japan，那 Jomon 不就是日本人吗？？为什么是 NG 呢？？

答：　原文中没有提到。也没有提到日本人的起源不是欧洲。

Q29.　文中说 the weight of evidence had pushed back the date of the first arrivals several thousand years, a site at cactus hill, near Richmond, may be 17,000 years old. 所以可能最老的是 cactus 吧，那他在不在北美文中没有说啊，所以我选了 NG 答案是 N。

答：　第 4 段首句提到 Chile 智利，南美洲国家，30000 年。

Q31.　搞不懂。

答：　注意 BC 的含义指公元前 (Before Christ)。看到表格例题中 13000BC 指的是 15000 年以前（现在是公元 2000 左右）。15000 出现在第一段。所以第二段的 5000 years ago，指的就是 3000BC 啦。再在附近找答案吧。

TEST 8

Q6. 文章中说的是 higher water temperatures may have adverse effects on juvenile and adult behaviour, 明明是有不好的影响嘛，再说前面也只是说 alter 并没有说要升高温度啊，这个空前是不是应该是 decrease 才对吧？？

答：这个空不应该错。是一个谓语的并列结构。通过上下文再读一读。上面说 alter river temperatures，到底是提高还是下降没说，但下一句紧接着说 higher，明显温度是 increase 了。

Q19. 文章中是 Egyptologists 和 engineers，题目中是 scientists 和 Egyptian experts，这怎么对应啊？？我当时做的时候考虑了很久，最后还是错了！

答：当然是对应的啦。Scientists 和 engineers 对应；Egyptian experts 和 Egyptologists 对应。

Q27. 题目中的 40% 找不到。

答：定位题干中的 15-year-olds，找到第一段最后一句。五分之一加五分之一是 40%。

Q28. 5 种 health problems 是哪 5 种，我只看到 4 种呢。

答：第 2 段中 high blood pressure, heart disease, type 2 diabetes, cancer, complications during and after pregnancy.

Q30. 哪里有 7 种 psychological problems?

答：在第 4 段中 negative self image, low self-esteem, eating diseases, bullying, depression, feelings if loneliness, nervousness.

Q37. 答案找不到。

答：算术题。原文中倒数第 3 段 30 minutes of moderate-intensity activity, five days a week，即是 150 minutes every week.

Q40. 在原文表格中 over 25 to 30 是 overweight，over 30 to 35 是 obese，都包含了 30，不好判断啊？

答：通过表格确实不好判断，但你看到表格上面有一句话解释："adults are overweight if they have a BMI of between 25 and 30, and they're obese if it's 30 or over."

TEST 9

Q5. 原文第五段首句说 twelve to eighteen months，所以我选了 NO。怎么会错呢？

答： 这道题很难。我把原文第 5 段的头两句话翻译一下：对狗追踪药物的训练在它 12 到 18 个月大的时候开始。而第一部分对狗的服从命令训练在那时已经完成了，这种训练经历了 4 到 6 个月。那么，对狗开始训练是什么时候呢？是在小狗 6 个月（12–6）至 12 个月（18–6）的这段区间。

Q20. 找不到。

答： 第 5 段，好好读一读。Electric railway 就是 electric trains。

Q21. 也找不到。

答： 文章答案不直接，出现在第 6 段倒数第 4 行中，对比 gasoline- and diesel-powered buses 和 electric streetcars 的好处时暗示出来。

TEST 10

Q6. 这道题难啊，找到原文 50 years 也填错了。

答： 是的，但雅思考试真题中也有类似的题，考察考生对常见语法的把握。因为雅思考试没有单独的语法部分，所以这各种阅读题型中有语法知识的体现。考试要小心。找到了做错就不划算了。

Q12. 这题也挺难啊，就是定位词和答案太远了，答案都跑到定位词上面去了，找起来很浪费了时间。

答： 这种题违反了出题顺序原则，在真实考试中也有出现过，但很少，要注意。

Q13. 我填了 12，最后一段。

答： 这个 summary 中好几个题都有难度。仔细阅读文章最后 3 段。文章倒数第 2 句说：12 个相似的 ceras 在其他层中发现了。那么一共 total 发现了多少呢？

Q21. 这道题我选的是 YES，原文第 3 段说的很清楚：Worldwide, traffic accidents kill some 885,000 people each year—equivalent to 10 fatal jumbo jet crashes per day—and injure many times more. 不就是说飞机比汽车安全吗。

答： 原文中说车祸的死亡人数数字比飞机多。并不敢直接指出飞机比汽车安全。想一想全世界有多少架飞机，又有多少辆汽车。如果 885000 除以全球汽车总量，再把每年空难人数除以飞机总数，哪一个更小？原文没给出，我觉得应该是汽车。

IELTS Band Scores

（IELTS 正确题数与分数段换算表）

听力

正确题数	分数段
1	1
2 – 3	2
4 – 9	3
10 – 16	4
17 – 24	5
25 – 32	6
33 – 37	7
38 – 39	8
40	9

学术类阅读

正确题数	分数段
1	1
2 – 3	2
4 – 9	3
10 – 15	4
16 – 22	5
23 – 28	6
29 – 35	7
36 – 39	8
40	9

普通培训类阅读

正确题数	分数段
1 – 2	1
3 – 5	2
6 – 11	3
12 – 17	4
18 – 25	5
26 – 34	6
35 – 37	7
38 – 39	8
40	9



Reading (Academic and General Training) Answer Sheet

Are you: Female? ▭ Male? ▭

Your first language code:

0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9

IELTS Reading Answer Sheet

Module taken (shade one box): Academic ▭ General Training ▭

		✓ ✗			✓ ✗
1		1	21		21
2		2	22		22
3		3	23		23
4		4	24		24
5		5	25		25
6		6	26		26
7		7	27		27
8		8	28		28
9		9	29		29
10		10	30		30
11		11	31		31
12		12	32		32
13		13	33		33
14		14	34		34
15		15	35		35
16		16	36		36
17		17	37		37
18		18	38		38
19		19	39		39
20		20	40		40

Checker's Initials		Marker's Initials		Band Score		Reading Total	

海纳领域



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自幼沉醉于中国山水及音律，留学期间曾叫嚣：做遍七十二行，尝尽人情百态；又高呼：挖资本主义墙角，为社会主义建设添砖加瓦；现好抚琴阅经。其留学散文集《与鱼共舞》被《海外文摘》、《青年文摘》等众多媒体登载，广为流传。著有《刘洪波说文解字背单词》、《雅思真经》系列教材。其中2004年出版的《雅思阅读真经》是行业内第一本全部以真题题库为蓝本编写的培训教材，考试命中率极高。面世以来，该系列教材至今已连续三年荣登全国雅思类图书销售排行榜榜首，畅销海内外。被媒体誉为"国内英语考试类教材质量提升的标志"。

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中国第一部真题预测



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